SIXTEENTH CATALOGUE

OF THE

ARKANSAS

INDUSTRIAL UNIVERSITY

Fayetteville, Washington Co., Ark.,

FOR THE

YEAR ENDING SEPTEMBER 3, 1888.

AND

ANNOUNCEMENT FOR 1888-89.

LITTLE ROCK, ARK.
PRESS PRINTING COMPANY.
1888.


STEPHENS LITHO & ENG. CO. ST. LOUIS

UNIVERSITY BUILDINGS.

The main University Building is a magnificent structure of brick, three stories in height with a stone basement and mansard roof. It occupies three sides of a quadrangle, and has a frontage of 214 feet.

In the north wing are situated the Chapel on the first floor, the Library on the second, and the Art Room on the third; in the south wing, the Work Shop and Engiue Room in the basement, the Preparatory Hall on the first floor, the College Hall and Drafting Room on the second, and the Museum on the third.

The main front of the building is divided into offices, recitation rooms and laboratories. The offices of the President and the Commandant, and the rooms of the Preparatory and Musical Departments are on the first floor, the Department of Mathematics, Engineering and Physics, Ancient and Modern Languages and Pedagogics have convenient rooms on the second floor, while the Departments of Agriculture and Chemistry and Biology and Geology are accommodated on the third floor. Above, on the fonrth floor, are the commodious and well-furnished halls of the Literary Societies.

This building covers an area of 26,108 square feet, and contains *seventy* rooms, together with broad corridors and ample stairways. As a safeguard against fire, and to insure uniform temperature, the entire building is heated throughout by steam.

The new Dormitory, in accordance with legislative enactment, was erected by the Board of Trustees in 1887, and opened to the use of students in the spring of 1888.

It is a substantial brick building three stories high, containing over forty rooms. In finish and appearance, both externally and internally, it is a model structure. The rooms are large, airy, well ventilated and lighted, and open into broad corridors extending lengthwise through the building. The entrances are five in number, three in front, which open upon a broad veranda, and two in the rear. As to location and drainage, every precaution has been taken to insure good health to its occupants. That proper care may be exercised a member of the teaching body resides here with his family, and the University Faculty make a regular tour of inspection. In this building the *electric light* has been substituted for kerosene lamps, and a source of danger is thus eliminated.

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Superintendent of Mechanic Arts; Professor of Engineering.

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Professor of Military Science and Tactics.

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Superintendent of Agriculture, Professor of Chemistry and Mineralogy.

OLIVER CROSBY GRAY, A. M. L. L. D.,
Professor of Mathematics, Logic and Astronomy.

JULIUS FRANKLIN HOWELL, A. M.,
Instructor in Pedagogics and Senior Assistant.

WILLIAM EMMETT ANDERSON (Grad. Miller Manual Labor School),
Adjunct Professor of Mechanic Arts and Instructor of Mechanical Drawing.

SIDNEY SMITH TWOMBLEY, B. S.,
Adjunct Professor of Chemistry and Agriculture.

CHARLES HENDEE LEVERETT, A. M.,
Adjunct Professor of Ancient Languages.

GEORGE WESLEY DROKE, A. M.,
Assistant in Preparatory Department

ANNA MARTHA WAGGONER,
Assistant in Preparatory Department.

JOHN COLLIN MASSIE, JR., A. B.,
Assistant in Preparatory Department

NAOMI JOSEPHINE WILLIAMS, A. M.,
Assistant in Preparatory Department.

KATE VAILLE KING,
Instructor in Music.

CORA BELLE LYON, B. P.,
Instructor in Free-hand Drawing and Industrial Art.

JULIUS WALTER MAYO (Grad. Miller M. L. School, Va.),
Instructor in Iron Work.

LEWIS CRAPO GARDNER (Grad. Chicago Man. Train. School),
Instructor in Foundry and Forging.

WILLIAM FERDINAND BATES,
Foreman of the Farm.

LEE TREADWELL,
Instructor in Field Engineering.

PHILIP HUDSON BABB,
Instructor in Wood Work.

WILLIAM NEWELL CROZIER,
Instructor in English.

IDA PACE,
Instructor in English.

MICHAEL DANAHER,
Instructor in Greek.

GEORGE ALBERT WARREN,
Instructor in English.

ALICE POLSON,
Instructor in English.

JOHN HAMILTON HOBBS,
Instructor in English.

PROFESSOR EDWARDS,
Librarian

PROFESSOR HOWELL,
Secretary of the Faculty.

MISS TAFF,
Assistant Librarian.

PROFESSOR DROKE,
Superintendent of Dormitory.

MRS. F. W. WASHINGTON,
Matron.

WILLARD FRENCH, Engineer
WALTER WATSON McCART, Janitor.

MEDICAL DEPARTMENT.

SESSION OF 1888-9

LOCATED AT LITTLE ROCK ARKANSAS.

PROFESSORS:

P. O. HOOPER, M. D.,
Emeritus, Practice of Medicine.

EDWIN BENTLEY, M. D.,
Institutes and Practice of Surgery.

JAS. A. DIBRELL, JR., M. D.,
General, Descriptive and Surgical Anatomy, and President of Faculty.

A. L. BREYSACHER, M. D.,
Obstetrics and Diseases of Women and Children.

JOHN J. McALMONT, M. D.,
Materia Medica, Therapeutics, Hygiene and Botany.

JAMES H. SOUTHALL, M. D.,
Practice of Medicine.

ROSCOE G. JENNINGS, M. D.,
Clinical Surgery and Dermatology.

W. G. MILLER, M. D.,
Medical Chimistry and Toxicology.

L. P. GIBSON, M. D.,
Demonstrator of Anatomy.

T. E. MURRELL, M. D.,
Ophthalmology and Otology.

JAMES H. LENOW, M. D.,
Diseases of Genito Urinary Organs.

CLAIBORNE WATKINS, M. D.,
Physical Diagnosis and Clinical Medicine.

LOUIS R. STARK, M. D.,
Gynaecology.

JOHN WATERS, M. D.,
Institutes of Medicine.

F. L. FRENCH, M. D.,
Prosector of Anatomy.

W. U. SIMONS, U. S. SIGNAL SERVICE,
Meteorology, etc.

J. N. Craig, Janitor at the College, on Second, between Main and Louisiana Streets.

All communications should be addressed to

R. G. JENNINGS, M. D.,
Secretary of Faculty, Little Rock, Ark.

THE ARKANSAS INDUSTRIAL UNIVERSITY.

AGRICULTURAL EXPERIMENT STATION.

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STATION OFFICERS.

A. E. MENKE ..... Director.
WM. TBELEASE ..... Consulting Botanist.
S. S. TWOMBLY ..... Chemist and Vice-Director.
F. W. SIMONDS ..... Biologist.
S. H. CROSSMAN* ..... Entomologist.
C. W. WOODWORTH ..... Entomologist.
E. H. RICHMAN ..... Horticulturist.
R. R. DINWIDDIE ..... Veterinarian.
C. B. COELINGWOOD ..... Chemist.
G. A. HUMPHREY ..... Assistant Chemist.
F. CORY ..... Assistant at Pine Bluff
R. L. MUNN ..... Assistant at Jonesboro.
J. K. FITZGERALD ..... Assistant at Texarkana.

*Deceased.

CATALOGUE OF STUDENTS.

SESSION OF 1887-8.

COLLEGIATE DEPARTMENT.

SENIOR CLASS.

Bowles, Preston	Civil Engineering.
Crozier, William N	Classical.
Danaher, Mike	Classical.
Dickson, W. E	Classical
Drake, N. F	Civil Engineering.
Flynn, W. M	Classical.
Hobbs, John H	Classical.
Pace, Ida	Classical.
Polson, Alice	Scientific.
W. W. Powell	Classical.
Schoff, George C	Civil Engineering.
Treadwell, Lee	Civil Engineering.
Warren, George A	Literary.
Total	13.

JUNIOR CLASS.

Aikin, Don C. B	Civil Engineering.
Fishback, L. F	Scientific.
Gardner, L. C	Mechanical Engineer.
Harrison, Grace	Literary.
Humphreys, G. A	Irregular.
McNeely, John C	Civil Engineering.
Slagle, Ida	Classical.
Southerland, J. W	Irregular.
Taff, A. G	Civil Engineering.
Taff, Joseph A	Civil Engineering.
Taff, Mollie	Classical.
Wade, John M	Classical.
Williams, H. E	Civil Engineering.
Total	13

SOPHOMORE CLASS.

Bates, William R	Irregular Agriculiural.
Bruce, T. V	Civil Engineering.
Duncan, Robert W	Classical.

Gunter, Walker L.....Classical.
Haney, William W.....Civil Engineering.
Harris, Robert D.....Civil Engineering.
Hervey, W. R.....Scientific.
Irvin, Robert W.....Civil Engineering.
Kemp, Elzie.....Scientific.*
Millsaps, Nelson.....Scientific.
Morrow, Mattie.....Scientific.
Obenshain, Ora.....Sclentific.
Patton, W. J., Jr.....Civil Engineering.*
Pittman, Jennie.....Irregular.
Reynolds, Mattie.....Normal.
Shreve, A. W.....Civil Engineering.
Shreve, Henry B.....Civil Engineering.
Stewart, William S.....Scientific.
Trott, Bertha.....Irregular.
Tsuji, Taro.....Civil Engineering.
Vaughan, Cordie.....Scientific.
Walker, Nannie.....Normal.*

Total.....22.

FRESHMAN CLASS.

Arkebauer, Charles.....Scientific.
Bray, W. O.....Agricultural.
Bush, Charles F.....Classical.
Cassaday, H. V.....Classical.
Condray, Wm. F.....Normal.
Core, Elias.....Normal.
Corley, E. P.....Normal.
Drake, Charle.. H.....Civil Engineering.
Duke, Annie.....Scientific.
Futrall, J. C.....Classical.
Galloway, Irene.....Normal.
Greene, Fred.....Civil Engineering.
Horton, S. A.....Normal.
Hughes, G. A.....Cjvil Englaeering.
Humphreys, John T.....Civil Engineering.
Leverett, Storer.....Civil Engineering.
Maxwell, C. H.....Agricultural.
Moore, David W.....Classical.*
Newman, A. J.....Classical.
Oliver, Wallace.....Classical.
Pace, Henry.....Classical.
Patton, Clyde C.....Classical.
Pendergrass, J. J.....Classical.
Pittman, H. N.....Mechanical Engineering.
Pruitt, W. E.....Scientific*
Quinney, W. R.....Classical.
Redus, John L.....Classical.
Reed, William L.....Irregular Agricultural.
Reynolds, Farie.....Normal.
Rutherford, Julia.....Irregular.
Rutledge, Jas. A.....Classical.
Sellers, Jordan.....Scientific.
Skelton, Gordon.....Civil Engineering.

Treadwell, Evans	Normal.
Turner, T	Civil Engineering.
Vineyard, John B	Classical.
Walker, Lou	Scientific.
Watson, Fannie	Scientific.
Total	37

SUB-FRESHMAN CLASS.

Atkins, John H	Civil Engineering.
Barnett, Robert M	Mechanical Engineering.
Benbrook, J. C	Scientific.
Black, J. W	Classical
Blackwell, Ida	Normal
Blackwell, William I	Civil Engineering.
Blanks, W. C	Classical.
Bowman, James H.	Agricultural.
Brown, Edward	Agricultural.
Busey, J. F	Normal.
Cassaday, Genie	Scientific
Crawford, Della	Scientific
Crawford, W. A	Classical
Curry, Jennie	Scientific.
Curry, Lula M	Scientific.
Curry, May E	Scientific.
Davies, Elza D	Civil Engineering.
Davis, S. N	Civil Engineering.
Dent, Henry G	Scientific.
Duncan, L. D	Civil Engineering.
Duncan, T. G	Scientific.
Ellis, Lila	Normal.
Ellis, Lola	Normal.
Everett, J. W	Agricultural.
Evins, Adah	Normal
Evins, A. W	Civil Engineering.
Ferguson, Arthur L	Classical.
Futrall, J. C.	Classical
Gregg, H. L.	Classical.
Hamilton, W. I	Normal.
Harrod, J. C.	Classical.
Harville, Robert T	Classical.
Hoag, E. C	Classical.
Holcomb, Cener B	Normal.
Hooper, G. W	Agricultural.
Horton, W. S	Classical.
Irvin, Richard B	Civil Engineering.
Jackson, Edna	Scientific.
Jacobs, J. J.	Normal
Jennings, Lizzie	Scientific.
Jones, Bertie	Scientific.
Lee, Frank	Mechanical Engineering.
Lee, Lillie	Scientific
Leverett, Ammie	Irregular
Lewis, Josephine	Scientific
Malone, J. E.	Normal

Martin, Pearl .Normal.
McKibben, F. P. .Civil Engineering.
McNeely, Thomas H .Agricultural.
Middleton, Maude .Classical.
Montgomery, J. J .Classical.
Morrow, Samuel V. .Agricultural.
Neal, James P .Classical.
Norman, George .Classical
Norris, Newton .Mechanical Engineering.
Oliver, Florence .Classical.
Parks, Ida L. .Scientific.
Payne, Joseph .Civil Engineering.
Perry, J. D. Agricultural.
Pollard, Mary Scientific.
Reed, Maude .Scientific.
Reinhardt, Hattie M. .Scientific.
Russell, E. C .Classical.
Simmons, L. L. .Agricultural.
Simmons, J. W .Classical.
Smith, S. K. Civil Engineering.
Smith, W. L. Civil Engineering.
Sorrells, W. B Classical
Taff, Sam M. .Civil Engineering.
Truett, Edward .Civil Engineering.
Turner, T. L. .Civil Engineering.
Vance, W. J .Agricultural.
Vaulx, Julia R. .Classical.
Vaulx, S. F. .Classical.
Vineyard, G. H. .Classical.
Wade, M. C .Nomal.
Walkup, W. H. Mechanical Engineering
Warren, Oscar B Normal
Watson, J. E Normal
Williams, J. F Normal
Williams Orville H .Civil Engineering.
Wills, Joseph F. Agricultural
Wines, Lulu M Scientific
Wood, Albert C .Civil Engineering.
Wood, Ben F. .Civil Engineering
Woodward, B. B. Agricultural
Young, Charles L. .Civil Engineering.
Total . . . 81

A CLASS.

Allen, William A. .Agricultural.
Anderson, Tim .Civil Engineering.
Barry, Pat .Classical
Baum, Lillia. Normal
Baxter, Bertha .Normal.
Beers, Leslie .Civil Engineering.
Bell, Joseph F. .Civil Engineering.
Bibb, Blanche .Classical.
Bocquin, G. S. B. .Agricultural.
Bolinger, Florence .Scientific.

Booker, William B.....Mechanical Engineering
Boone, Daniel A.....Normal
Bowen, Robert I.....Agricultural
Bray, Thomas W.....Civil Engineering
Brooks, Minnie.....Normal
Buckner, Jennie.....Normal
Burton, W H.....Mechanical Engineering.
Campbell, Effie.....Normal.
Campbell, Robert O.....Civil Engineering.
Carden, Charles R.....Agricultural.
Carnes, I J.....Classical.
Carter, George W.....Civil Engineering.
Carter, Lizzie M.....Normal
Carter, Paul D.....Mechanical Engineering.
Caruthers, Fred.....Classical
Cassaday, Mamie H.....Normal.
Chapman, H. F.....Civil Engineering.
Cockman, J. A.....Agricultural
Coffey, Emma.....Normal
Corthers, Josie.....Irregular.
Creagar, James M.....Civil Engineering.
Curry, Lizzie.....Irregular.
Davies, Clyde.....Civil Engineering.
Dickinson, C. F.....Classical.
Dowell, Robert W.....Agricultural
Dnrden, J. P., Jr.....Agricultural
Earle, Ben R.....Irregular.
Evans, Ella.....Normal
Fannin, Fred H.....Classical
Ferguson, J. W.....Mechanical Engineering.
Finley, Della.....Normal.
Fishback, W. M., Jr.....Agricultural.
Funk, William R.....Mechanical Engineering.
Funston, W. P.....Mechanical Engineering.
Gallaway, Paul.....Agricultural.
Garrison, Linda.....Classical.
Gatewood, James E.....Agricultural.
Gibson, W. A.....Agricultural.
Gleghorn, William A.....Agricultural.
Gordon, James.....Mechanical Engineering.
Gregg, Ida.....Classical.
Griffith, E. Blanche.....Classical
Griffith, Gaylord C.....Civil Engineering.
Gulledge, W. T.....Mechanical Engineering.
Hale, Irwin.....Agricultural.
Hall, Una.....Classical.
Harris, Charles A.....Agricultural.
Harris, Rena.....Normal
Harris, Robert C.....Scientific
Harvey, Zoni.....Normal.
Haws, J P.....Normal.
Hays, G W.....Mechanical Engineering.
Heberly, Joseph A.....Civil Engineering.
Hight, Beulah.....Normal.

Hinton, C A ..... Agricultural
Hocott, Joseph H ..... Agricultural
Hoge, H M ..... Agricultural
Holway, Lutie ..... Normal
Howell, William ..... Agricultural.
Howerton, C. T ..... Civil Engineering.
Hulse, Marcus L ..... Scientific.
Hunt, Gertie ..... Normal.
Illian, W. L ..... Agricultural.
Jarrett, J. E ..... Classical,
Jackson, Hugh ..... Civil Engineering.
Jelks, John L ..... Classical,
Jobe, Fannie ..... Normal
Johnson, Geo. W ..... Civil Engineering.
Johnson, Lawson W ..... Civil Engineering
Johnson, Lydia ..... Normal.
Jones, John E ..... Agricultural.
Kell, John T ..... Civil Engineering.
Lee, Myra M ..... Scientific.
Leverett, Charles J ..... Agricultural.
Lewis, Lucius L ..... Classical.
Marion, H. M ..... Mechanical Engineering.
McBride, Emma ..... Normal.
McBride, Toccoa ..... Normal.
McCarty, Myrta ..... Normal.
McDearmon, Ben C ..... Mechanical Engineering.
McIlroy, Annie ..... Scientific.
McIlroy, Charles D ..... Civil Engineering.
McIntosh, J. E ..... Agricultural.
McKibben, William W ..... Civil Engineering.
Medearis, Robert S ..... Agricultural
Miller, C. H ..... Civil Engineering
Mitchell, J. L ..... Agricultural.
Mooring, Blanche ..... Scientific
Morley, Mary ..... Normal.
Morris, W. R ..... Civil Engineering.
Mullins, Charles T ..... Agricultural.
Mullins, William E ..... Civil Engineering
Myers, W. P ..... Mechanical Engineering.
Nauck, Charles A ..... Mechanical Engineering.
Nevins, Kate ..... Scientific
Norris, Annie ..... Scientific
Ogg, M F ..... Agricultural.
Padgitt, Charles W ..... Classical.
Padgitt, James Thomas ..... Classical.
Rainey, Wilson ..... Classical
Rattenburg, Blanche ..... Scientific.
Rattenburg, Edith F ..... Scientific.
Reinhardt, Allyn ..... Agricultural
Russell, J. A ..... Agricultural.
Sexton, Robert ..... Mechanical Engineering.
Shibley, Carl ..... Civil Engineering.
Shipley, John ..... Mechanical Engineering.
Shreve, H. W ..... Civil Engineering.
Sibley, Moreau L ..... Agricultural.

Simmons, Ella ..Normal.
Simpson, L. E ..Mechanical Engineering.
Simpson, Nettie V .....Scientific.
Smith, Albert E .....Mechanical Engineering.
Souter, J. A .....Civil Engineering.
Spears, William S .....Agricultural
Speer, G. H .....Classical.
Stark, H. I. ..Mechanical Engineering
Stewart Carrie M ..Classical.
Stewart, Grace . Classical.
Taylor, Thomas J ..Agricultural.
Thomas, Alice ..Normal.
Treadwell, S. C Normal.
Vaughan, Rufus A...
Wace, Eddie
Wade, Lena
Ward, W. J Agricultural.
Ware, John ..Civil Engineering.
West, J. B ..Mechanical Engineering
West, S. C..
White, Lula ..Normal.
White, Fannie ..Classical.
Whithey, J. F ..
Wilkins, J. S ..Civil Engineering.
Williams, Mattie B
Willoughby, H. L ..Scientific.
Wilson, Lizzie ...Normal.
Wingo, Zenas.... . Normal.
Yoes, J. W .....

B CLASS.

Anderson, O. S.
Baker, Wm. A.
Baum, Edward
Baylor, Della
Beers, Philip
Benbrook, Agnes
Benton, John
Bethel, Arthur
Belding, A. G.
Belt, Mattie
Bishop, Samuel A.
Blackmer, Stella
Blackmer, A. C.
Blagg, Wm. M.
Bonds, A. C.
Bower, Lillie
Bray, Etta
Brewer, J. G.
Buckner, Walker
Buckner, Chas.
Buckner, George W.
Bugg, O. L.

Freyschlag, Sallie
Frost, E. L.
Gray, Lillie
Gilbreath, J. M.
Glaeden, G. L.
Greer, Luther
Greathouse, Addie
Griffin, Maggie
Ham, Fred
Hensley, Ida C.
Hite, David R.
Hooper, Stella
Hollis, J. H.
Hudson, Lillie
Hunt, Samuel L.
Hunter, Wm
Jackson, Oza
Jackson, Will
Jones, J. S.
Jones, Isaac D.
Lee, T. H.
Lee, Eva

Nevins, Chas L.
Padgitt, James Thomas
Padgitt, Charles W.
Rainey, Pinckney L.
Rainey, Wilsie
Rainey, Wright H.
Rainwater, Carrie
Riley, Martin
Rutledge, Lena
Sannoner, J. H., Jr
Savage, C. C
Sanderson, Samuel
Scott, James W.
Scott, John E.
Scott, Mamie
Scott, Willard B.
Scott, Wm. M.
Smith, Gertie
Taylor, Douglas B
Taylor, Mattie
Thomas, C. K.
Tunnell, J. E.

Carlisle, Edward E.	Leverett, Abbie	Tunstall, Mary V.
Carnes, James J.	Lewis, Lena	Ussery, Bedford
Cooper, G. W	Meyers, J. H.	Vaughan, Mollie
Cornelius, Fred M	McIlroy, Kate	Vaught, L. A
Cornelius, Augustus	McNair, Maude	Vaulx, Kate
Cornelius, Benj. A	McNair, May	Vaulx, Madge.
Cornelius, Rosena	McNeely, Susie	Wade, Thomas T.
Cravens, Hal F.	McRay, Mack	Wade, Leila
Crozier, J P.	Millsaps, Wm J.	Wardin, Bessie
Cunliff, John	Moore, Cora	Washington, John D.
Duncan, Cameron	Moore, J. F.	Washington, Ruby
Earle, B. R.	Moore, Gertie	Williams, Clora
Edmonds, David	Moore, Nolen	Williams, Jennie
Fannin, Frederica	Mullins, Lucy	Wilson, Nellie
Ferguson, Gussie	Mullins, J. S.	Wood, Norma
Fishback, H. Y.	Murray, Annie L	Wright, Moses
Flemming Archie	Murray, Augusta	Yarborough, W. P.
Fletcher, John P.	Murray, Nannie	Yoes, G. C.
Forbes, Emma	Newlin, J. B.	

Total 122

SUMMARY.

Students in Agricultural Course	18
Students in Mechanical Engineering Course	26
Students in Civil Engineering Course	68
Students in Scientific Course	45
Students in Classical Course	66
Students in Normal Course	36
Students taking an Irregular Course	9
Literary	2
Students in the "B" Class	122
Total Number of Matriculates at Fayetteville	113
Number Studying Music	27
Medical Department at Little Rock	67
Branch Normal College at Pine Bluff	181
Total	718

GENERAL INFORMATION.

The aims of the University are set forth in the following sections of the acts of Congress and of the General Assembly of Arkansas, under which it was established:

The act of Congress of 1862, appropriating lands to establish colleges in the States, provides that all moneys derived from their sale "shall be inviolably appropriated by each State which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college, where the leading objects shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

(U. S. Statutes, Vol. 61, Stat. 7, Sec. 4).

Our own General Assembly, in accepting the original grant and in creating the University, provides that the fund realized therefrom, "shall be forever devoted and applied to the endowment and maintenance, under such laws or articles of incorporation as may be by the General Assembly hereafter provided, of an institution of learning to be styled 'The Arkansas Industrial University,' wherein shall be taught, in addition to the usual course of study prescribed in universities, the science and practice of Agriculture, the Mechanical Arts, Engineering and Military Science and Tactics."

(Act of July 23, 1868).

In order further to emphasize the Agricultural and Mechanical Departments, the late Legislature, in what is known as the "Barker bill," while making a handsome appropriation to each

of these leading departments, ordained that all male beneficiaries should pursue one of these courses; restricted the subjects to be taught to beneficiaries; and fixed the number and character of the professorships. The evident design of the Legislature was to respond to the demands and needs of the State, by creating an Agricultural and Mechanical Institution, with such subsidiary courses as the amount of the appropriation would allow. The present Board of Trustees and the Faculty of the Institution, aware of the necessities of the State and fully in accord with the policy outlined by the Legislature, have done all in their power, in laying out the appropriation and drawing up the courses of study, to meet the wants, both of the great mass of the State, and also of the minority in a subsidiary way. We are fully persuaded that the Agricultural and Mechanical courses here offered and the facilities afforded by the Legislative appropriations will enable us to turn out graduates in these Departments that will compare favorably with those of any other school, while at the same time, with little or no additional cost to the State, strong Classical and Normal courses have been laid down. We engage to turn out B. A. and L. I. graduates, strong, healthy, vigorous, and at the same time furnished with far more than the average knowledge, training and experience found in graduates of this character from other colleges.

The courses offered are the following:

Courses 1, 2, 3, 4, 5, 6, are free to all beneficiaries, but if any language other than English is taken, the regular tuition fee is charged.

Courses 7 and 8 can be taken only by the payment of the regular tuition fee of ten dollars per year.

All courses *for male students* are required to include practical work at from three cents to ten cents per hour. The hours of the day are, therefore, divided into two parts; the morning hours are devoted to recitations in the various courses; three hours of the afternoon are devoted to the various kinds of practical work. The schedule of courses from p. 24 to page 33 includes only the five periods into which the hours from 9 a. m. to 12.20 p. m. are divided. For afternoon work all male students are referred to p. 34 and following, where the full schedule of afternoon work is given.

Arrangements have been made so that a student in any years may by application to the Faculty and at the discretion of that body, take, as a fifth study, French in the Freshman and Sophomore years, and German in the Junior and Senior years, and where possible, as stated in schedule, p. 24 to p. 33, the student has been allowed to use his own discretion in choosing the studies marked with a dagger; but in all cases, beneficiaries, when they take any language other than English, must pay the regular tuition fee of ten dollars per year.

The Classical course is intended to meet the wants of those who [illegible] strong and steady enough to do the practical work required, have the energy and will-power to do the mental work of a B. A. course, and obtain that degree as a basis for professional life, or for mental training, of those who have State pride enough not to want to go outside of the State to obtain that training which the State *ought to, can and does* afford its sons. The very best material of the State, thus dissociated from all its interests and belongings during the whole period of training, is either permanently lost to the State, or comes back to work at an immense disadvantage for want of knowledge of those of whom under other circumstances there would have existed the truest of all knowledge, the intimate association of college life. We call upon the patriotism of the State to stop this annual emigration, and are glad to be able

on our own part, to offer a strong and carefully planned B. A. course.

The Scientific course is intended to offer thorough and extensive training in the principles of General Science, together with English, and French and German as electives.

Especial attention is paid to the Physical and Biological Sciences.

An elementary course embracing Chemistry, Botany and Zoology is taken in the Sub-Freshman year and followed by a continuation of these subjects with copious laboratory and practical work, together with a full course in Physics, throughout the whole year. It is believed that the advantages offered in Chemistry, Biology and allied sciences in this course, will be found scarcely inferior to those of similar courses in any of our higher institutions of learning. The well equipped Chemical, Mineralogical and Biological Laboratories of the University affords ample means of illustration as well as excellect opportunities for practical scientific work, and for original investigation.

Those who satisfactorily complete the course in General Science are entitled to the degree of B. S. (Bachelor of Science). The afternoon exercises in this course are confined to the Laboratory, Shop, Field Surveying, and Drawing, but the student may substitute work on the farm for part of his shop work if he so desires. The course in General Science is open to all beneficiaries, but if they choose to take additional work in French or German they must pay the regular tuition fee of ten dollars per year.

By a resolution of the Board of Trustees, every parent or guardian is required to choose for his son or ward, if a minor, either the Mechanical or Agricultural course of labor, and to make a written communication to the President at the entrance of the student, stating the choice made.

The manual work required of young ladies is Industrial Drawing, Wood Carving, Tapestry, Painting and Designing.

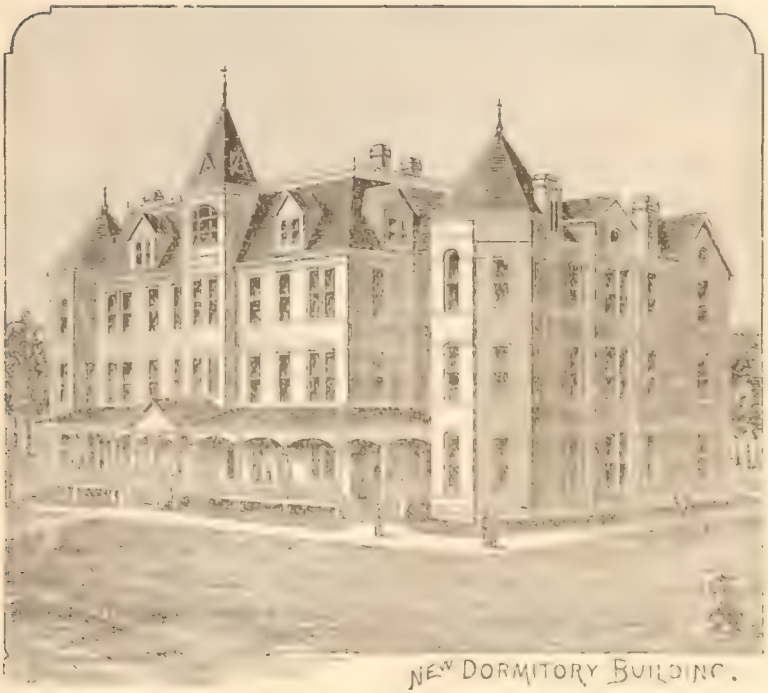
CONDITIONS FOR ADMISSION TO FRESHMAN CLASS.

All new students seeking to enter the Freshman Class will be examined in Geography, U. S. History, English Grammar (Analysis and Composition), Arithmetic, Algebra (to Quadratic Equations), Geometry (three books) and Latin, if the course of study embraces Latin.

Candidates for higher classes, or for the Freshman Class, after beginning of session, will be examined also in the subjects passed over by the class.

PREPARATORY DEPARTMENT.

The A Class and the sub-Freshman Class constitute the Preparatory Department, and, as will be seen by reference to the schedule, p. 24 to p. 33, are substantially the same for all courses. The B Class will consist of those that fall below the requirements for the A Class in any study, and it will be used to coach up students so failing. The student will remain in it only so long as is necessary to prepare him for the upper class. In order that this coaching work may the more readily and rapidly be done, the Board of Trustees, not regarding the students of this class as regular members of the University, have remitted the labor required in their case.



NEW DORMITORY BUILDING.

COURSES OF STUDY

IN THE

ARKANSAS INDUSTRIAL UNIVERSITY.

SESSION 1888-89.

EXPERIMENTAL STATION BUILDING

COURSES OF STUDY.

I. AGRICULTURAL COURSE FOR THE DEGREE OF BACHELOR OF SCIENTIFIC AGRICULTURE (B. S. A.)

A CLASS.	1	[illegible]	English	English.
	2	Arithmetic	Arithmetic	Arithmetic.
		[illegible]	U. S. History	U. S. History.
	4	Reading and Spelling	Reading and Spelling	Reading and Spelling.
SUPERIOR CLASS.	1	Elementary Chemistry	[illegible]	
	2	[illegible]	Elementary Botany	Elementary Physiology.
	3	Geometry	Algebra	Algebra.
	4	Physical Geography	Phys'l Geo & Bk Keep'g	Book-Keeping.
	5	English	English	English.
FRESHMAN CLASS.	1	Algebra	Algebra and Geometry	Geometry.
	2	English	English	English.
	3	Physics	Physics	Agriculture.
	4	[illegible]	Botany	Zoology.
SOPHOMORE CLASS.	1	General History	General History	General History
	2	Structural Botany	Entomology	Stock Feeding.
	3	General Chemistry	General Chemistry	General Chemistry.
	4	Geometry	Plane Trigonometry	Veterinary Anatomy.
JUNIOR CLASS.	1	Mineralogy	[illegible]	Geology.
	2	[illegible]	[illegible]	Horticulture.
	3	Veterinary Anatomy	Veterinary Science	Veterinary Science.
	4	Analytical Chemistry	Analytical Chemistry	Analytical Chemistry.
	5	Agriculture	Agriculture	
SENIOR CLASS.	1	Veterinary Science	Dairy Husbandry	Dairy Husbandry.
	2	Horticulture	Surveying	Agricultural Machinery.
	3	Stock Breeding	Stock Breeding	Stock Breeding.
	4	Analytical Chemistry	Agricultural Chemistry	Political Economy.

COURSES OF STUDY—*Continued.*

II. SHORT AGRICULTURAL COURSE.

A CLASS.	1	.....	.....	.....
	2	Same as long	Same as long	Same as long
	3	Agricultural Course	Agricultural Course.....	Agricultural Course.
	4			
SUB-FRESH. CLASS.	1	Same as long.....	Same as long	Same as long
	2	Agricultural Course.....	Agricultural Course.....	Agricultural Course.
	3	.....	.....	
	4			
FRESHMAN CLASS.	1	Algebra.....	Algebra and Geometry.	Geometry.
	2	English	English	English.
	3	....		
	4	Physics	Agriculture	Agriculture.
	5	Physiology	Botany	Zoology.
SOPHOMORE CLASS.	1	General History	General History.....	General History.
	2	Horticulture..	Dairy Husbandry	Dairy Husbandry.
	3	General Chemistry.....	General Chemistry.	General Chemistry.
	4	Stock Breeding	Stock Breeding	Stock Breeding.
	5	.....	.....	

COURSES OF STUDY—*Continued.*

III.—MECHANICAL ENGINEERING COURSE FOR DEGREE OF MECHANICAL ENGINEER (M. E.)†.

Classes	Hours.	First Term.	Second Term.	Third Term.
A CLASS	1	[illegible]	English	English
	2	Arithmetic	Arithmetic	Arithmetic.
	3	[illegible]	United States History ...	United States History.
	4	Reading and Spelling	Reading and Spelling	Reading and Spelling.
SUB-FRESHMAN CLASS	1	Elementary Zoology		
	2		Elementary Botany	Elementary Physiology.
	3	Geometry	Algebra	Algebra.
	4	Physical Geography	Physical Geog. & B'k-K'p'g	Book-Keeping
	5	English	English	English.
FRESHMAN CLASS	1	Algebra	Algebra and Geometry	Geometry.
	2	English	English	English.
	3	French (elective).....	French (elective).	French (elective).
	4	Physics	Physics	Physics.
	5	Shop Work Appliances	Roads, Streets & Pavemn'ts	Descriptive Geometry.
SOPHOMORE CLASS	1	General History ..	General History	Elements of Mechanism.
	2	Heat	Surveying	Surveying
	3	General Chemistry.	General Chemistry	General Chemistry.
	4	French (elective)	French (elective)	French (elective).
	5	Geometry	Plane Trigonometry	Spherical Trigonometry.
JUNIOR CLASS.	1	Friction and Lost Work ..	Machinery and Mill Work .	Machinery and Mill Work.
	2	Analytical Geometry	Anal. Geom and Calculus	Calculus.
	3	Steam Engineering	Steam Engineering	Elementary Mechanics.
	4	Analytical Chemistry.....	Analytical Chemistry	Analytical Chemistry.
	5	German (elective).....	German (elective) ..	German (elective).
SENIOR CLASS	1	Applied Mechanics	Applied Mechanics	Methods of Testing Steam Machinery.
	2	Materials of Construction.	Specifications and Contracts	Hydraulic Engineering.
	3	Thermodynamics	Boiler Design	Steam Engine Design.
	4	German (elective)	German (elective)	German (elective).
	5	Sanitary Engineering.....	Valve Gear Design	Electrical Engineering.

†Drawing, Shop Work, Surveying and Laboratory Practice are included in the practical afternoon exercises.

COURSES OF STUDY—*Continued.*

IV.—MANUAL TRAINING COURSE.†

Classes	Hours.	First Term.	Second Term.	Third Term
A Class		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Sub-Fresh Class.		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Freshman Class		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course	Same as Mechanical Engineering Course.
Sophomore Class	1	General History	General History	Elements of Mechanism.
	2	Steam Engineering.	Steam Engineering	Steam Engineering
	3	General Chemistry	General Chemistry	Elements of Mechanics.
	4			
	5	Geometry	Plane Trigonometry	Spherical Trigonometry.

†Drawing and Shop Work, constitute the practical afternoon exercises.

COURSES OF STUDY—*Continued.*

V.—CIVIL ENGINEERING COURSE FOR DEGREE OF CIVIL ENGINEER (C. E.)†

Classes	Hours	First Term.	Second Term.	Third Term.
A Class.		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Sub-Freshman Class.		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Freshman Class.		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Sophomore Class.		Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.	Same as Mechanical Engineering Course.
Junior Class.	1	Steam Engineering	Geology	Geology.
	2	Analytical Geometry	Anal. Geom. and Calculus.	Calculus.
	3	Road Engineering	Road Engineering.	Elementary Mechanics.
	4	Analytical Chemistry	Analytical Chemistry	Analytical Chemistry.
	5	German (elective	German (elective	German (elective).
Senior Class.	1	Applied Mechanics	Applied Mechanics.	Study of Engin. Structures.
	2	Materials of Construction	Specifications & Contracts	Hydraulic Engineering.
	3	Astronomy.	Bridge Engineering	Bridge Engineering.
	4	German (elective)	German (elective)	German (elective).
	5	Sanitary Engineering	Arches and Dams	Electrical Engineering

†Drawing, Surveying, Shop Work, and Laboratory Practice, constitute the practical afternoon exercises.

COURSES OF STUDY—*Continued.*

VI.—SCIENTIFIC COURSE FOR DEGREE OF BACHELOR OF SCIENCE (B. S.)

A CLASS.	1	[illegible]	[illegible]	English
	2	Arithmetic	Arithmetic	Arithmetic.
	3	Geography	United States History	United States History.
	4	Reading and Spelling	Reading and Spelling	Reading and Spelling.
SUP-FRESHMAN CLASS.	1	Elementary Geometry		
	2	[illegible]	Elementary Botany	Elementary Physiology.
	3	Geometry	Algebra	Algebra.
	4	Physical Geography	Physical Geography and Book-keeping	Book-keeping.
	5	English	English	English.
FRESHMAN CLASS.	1	Algebra	Algebra and Geometry	Geometry.
	2	English	English	English.
	3			
	4	Physics	Physics	Physics.
	5	Zoology	Botany	Physiology.
SOPHOMORE CLASS.	1	General History	General History	General History.
	2	Structural Botany	Entomology	Horticulture
	3	General Chemistry	General Chemistry	General Chemistry.
	4			
	5	Geometry	Plane Trigonometry	Spherical Trigonometry.
JUNIOR CLASS.	1	Mineralogy	Geology	Geology.
	2	Analytical Geometry	Analytical Geometry	Calculus or Logic.
	3	Eng. Literature or German	Eng. Literature or German	Eng. Literature or German.
	4	Analytical Chemistry	Analytical Chemistry	Analytical Chemistry.
	5			
SENIOR CLASS.	1			
	2	Anglo-Saxon or French	Anglo-Saxon or French	Eng. Philology or French.
	3	Astronomy	Surveying or History of Education	Electricity or School Management.
	4	Advanced Biology or Heat or Metallurgy	Advanced Biology	Economic Geology.
	5	Physiology	Physiology and Ethics	Political Economy.

COURSES STUDY—*Continued.*

VII. CLASSICAL COURSE FOR BACHELOR OF ARTS (B. A.)

Classes.	Hours.	First Term.	Second Term.	Third Term.
	1	English	English	English.
	2	Arithmetic	Arithmetic	Arithmetic.
	3	Geography	U. S. History	U. S. History.
	4	[illegible]	[illegible]	[illegible]
	5	Latin	Latin	Latin.
		[illegible]	[illegible]	[illegible]
	2	Latin	Latin	Latin.
	3	Geometry	Algebra	Algebra.
	4	[illegible]	[illegible]	[illegible]
	5	English	English	English.
	1	Algebra	Algebra and Geometry	Geometry.
	2	[illegible]	[illegible]	[illegible]
	3	†Greek, †French	†Greek, †French	†Greek, †French.
	4	†Physics	†Physics	†Physics.
	5	Latin	Latin	Latin
	1	General History	General History	General History.
	2	Latin	Latin	Latin
	3	†General Chemistry	†General Chemistry	†General Chemistry.
	4	[illegible]	[illegible]	[illegible]
	5	Geometry	Plane Trigonometry	Spher. Trigonometry.
		[illegible]	[illegible]	[illegible]
	2	Analytical Geometry	Analytical Geometry and	†Calculus.
	3	English Literature	English Literature	English Literature.
	4	Latin	Latin	Logic.
	5	†Greek, †German	†Greek, †German	†Greek. †German.
	1	Latin	Latin	Latin.
	2	Anglo-Saxon	Anglo-Saxon	English Philology.
	3	†Greek-†Astronomy	†Greek	†Greek.
	4	†German	†German-†Surveying	†German.
	5	[illegible]	[illegible]	[illegible]

†Of the studies thus marked in each term, one is required.

COURSES OF STUDY—*Continued.*

VIII. NORMAL COURSE FOR LICENTIATE OF INSTRUCTION (L. I.)

Classes	Hours.	First Term.	Second Term.	Third Term.
A CLASS	1	English	English	English.
	2	Arithmetic	Arithmetic	Arithmetic.
	3	Geography	U. S. History	U. S. History.
	4	Reading and Spelling (opt'l)	Reading and Spelling (opt'l)	Reading and Spelling (opt'l.)
	5	Latin	Latin	Latin.
SUB-FRESHMAN CLASS	1	El. Chemistry (opt'l)	Pedagogics	
	2	Pedagogics	Elementary Botany (opt'l)	Elementary Physiology.
	3	Geometry	Algebra	Algebra.
	4	Latin or Phys. Geography	Latin or Physical Geography and Book-Keeping.	Latin or Book-Keeping.
	5	English	English	English.
FRESHMAN CLASS.	1	Algebra	Algebra and Geometry	Geometry.
	2	English	English	English or Physics.
	3		History of Education	School Management.
	4	Physics	Physics (optional)	Zoology (optional)
	5	Latin	Latin	Latin.
SOPHOMORE CLASS.	1	General History	General History or Surveying (optional).	General History.
	2	Latin	Latin	Latin.
	3	General Chemistry	General Chemistry	Psychology.
	4		Science of Education	Const. and School Law.
	5	Geometry	Plane Trigonometry.	Ethics (optional).

SCHEDULE OF PRACTICAL EXERCISES—AFTERNOON WORK.

Class.	Day.	AGRICULTURAL COURSE			SCIENTIFIC COURSE		
		First Term.	Second Term.	Third Term.	First Term.	Second Term.	Third Term.
A	Monday	Shop	Draw and drill	Shop	Farm or shop	Draw and drill	Farm or shop
	Tuesday	Draw and Drill	Shop	Draw and drill	Draw and drill	Farm or shop	Draw and drill.
	Wednesday	Farm	Draw and drill.	Farm	Farm or shop	Draw and drill	Farm or shop
	Thursday	Draw and drill	Farm	Draw and drill	Draw and drill	Farm or shop	Draw and drill
	Friday	**Farm**		**Farm**	**Farm or shop**		**Farm or shop.**
	Saturday		Farm			Farm or shop	
SUB-FRESH	Monday	Draw and drill	Farm	Draw and drill			
	Tuesday	Farm	Draw and drill	Farm	Draw and drill	Farm or shop	**Draw and drill.**
	Wednesday	Draw and drill	Farm	Draw and drill	Draw and drill	Farm or shop	**Farm or shop.**
	Thursday	Farm	Draw and drill	Farm	Farm or shop	Draw and drill	**Draw and drill.**
	Friday		Shop			Farm or shop	**Farm or shop.**
	Saturday	Shop.		Shop	**Farm or shop**		
FRESH-MAN	Monday	Farm	Farm	Farm	Farm or shop	Farm or shop	**Farm or shop.**
	Tuesday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Wednesday	Farm	Farm	Farm	Farm or shop	Farm or shop	Farm or shop
	Thursday	Draw and drill	Draw and drill.	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Friday				**Farm or shop**	**Farm or shop**	**Farm or shop.**
	Saturday	**Shop.**	Shop	Shop			
SOPHO-MORE	Monday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill.
	Tuesday	Farm	Farm	Farm	Farm or shop	Farm or shop	Farm or shop
	Wednesday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Thursday	Biol. lab	Biol. lab	Shop	Biol. lab	Biol. lab	Shop
	Friday	Biol. lab	Biol. lab	Farm	Biol. lab	Biol. lab	Farm or shop.
	Saturday						
JUNIOR	Monday	Chem. lab	Chem. lab	Chem. lab	Chem. lab	Chem. lab	Chem. lab
	Tuesday	Farm and drill	Drill	Drill	Farm or shop & drill	Drill	Drill
	Wednesday	Chem. lab	Chem. lab	Chem. lab	Chem. lab	Chem. lab	Chem. lab
	Thursday	Chem. lab and drill	Chem. lab and drill.	Chem. lab and drill.	Chem. lab and drill	Chem. lab and drill	Chem. lab and drill.
	Friday	Chem. lab	Chem. lab	Farm	Chem. lab	Chem. lab	Farm or shop
	Saturday		Geological survey	Geological survey		Geological survey	Geological survey
SENIOR.	Monday	Farm and drill	Farm and drill	Farm and drill	Farm or shop & drill	Farm or shop & drill	Farm or shop & drill.
	Tuesday	**Farm**	Surveying	Surveying	**Farm or shop**	**Surveying**	**Surveying.**
	Wednesday	**Farm and drill**	Farm and drill	Farm and drill	Farm or shop & drill	Farm or shop & drill	**Farm or shop & drill.**
	Thursday	**Farm**	Farm	Farm	Biol. lab	Biol. lab	Phys. lab.
	Friday	**Farm**	Farm	Farm	Biol. lab	Biol. lab	Phys. lab.
	Saturday						

SCHEDULE OF PRACTICAL EXERCISES—AFTERNOON WORK.

	Day.	CIVIL ENGINEERING AND SURVEYING.			MECHANICAL ENGINEERING AND MANUAL TRAINING.		
		First Term.	Second Term.	Third Term.	First Term.	Second Term.	Third Term.
JUNIOR	Monday	[illegible]	[illegible]	[illegible]	Draw and drill	[illegible]	Draw and drill
	Tuesday	[illegible]	[illegible]	[illegible]	[illegible]	Draw and drill	Shop
	Wednesday	[illegible]	[illegible]	[illegible]	Draw and drill	Shop	Draw and drill
	Thursday	Shop	Draw and drill	Shop	Shop	Draw and drill	Shop.
	Friday	[illegible]	Shop	[illegible]	[illegible]	Shop	[illegible]
	Saturday	Shop	[illegible]	Shop	Shop	[illegible]	Shop.
SUB-FRESH.	Monday	[illegible]	[illegible]	[illegible]	[illegible]	Draw and drill	Shop
	Tuesday	Draw and drill	[illegible]	Draw and drill	[illegible]	[illegible]	Draw and drill.
	Wednesday	[illegible]	Draw and drill	[illegible]	Shop	Draw and drill	Shop
	Thursday	Draw and drill	[illegible]	[illegible]	Draw and drill	Shop	Draw and drill
	Friday	Shop	[illegible]	Shop	Shop	[illegible]	Shop.
	Saturday	[illegible]	Shop	[illegible]	[illegible]	Shop	[illegible]
SOPHO-MORE	Monday	[illegible]	[illegible]	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Tuesday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Shop
	Wednesday	[illegible]	[illegible]	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Thursday	Shop	Shop	Shop	Shop	Shob	Shop.
	Friday	Shop	Shop	Shop	Shop	Shop	Shop.
	Saturday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FRESH-MEN	Monday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Draw and drill
	Tuesday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Surveying
	Wednesday	[illegible]	[illegible]	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Thursday	Shop	Shop	Surveying	Shop	Shop	Shop.
	Friday	Shop	Shop	Shop	Shop	Shop	Shop.
	Saturday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUNIOR	Monday	Surveying	[illegible]	[illegible]	[illegible]	Chem. lab.	Chem. lab.
	Tuesday	Draw and drill	Drill	Draw and drill	[illegible]	Draw and [illegible]	Draw and drill.
	Wednesday	Chem. lab	Chem. lab	Chem lab.	[illegible]	Chem. la	Chem. lab.
	Thursday	Chem lab and drill	Chem lab and drill	Chem lab. and drill	[illegible]	[illegible]	Chem. lab. and drill.
	Friday	Chem lab	Chem lab. ($2\frac{1}{2}$ hours)	[illegible]	[illegible]	Chem. lab.	Shop.
	Saturday	[illegible]	Geol survey	Geol Survey	[illegible]	[illegible]	[illegible]
SENIOR	Monday	Shop	Shop	Shop	Shop	Shop	Shop.
	Tuesday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill
	Wednesday	Surveying	Surveying	Surveying	Shop	Shop	Shop.
	Thursday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill.
	Friday	Shop	Shop	[illegible]	Shop	Shop	Shop.
	Saturday	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SCHEDULE OF PRACTICAL EXERCISES—AFTERNOON WORK.

Class	Day	CLASSICAL COURSE. First Term	Second Term.	Third Term.	NORMAL COURSE. First Term	Second Term.	Third Term.
A	Monday	Farm or shop	Draw and drill	Farm or shop	Draw and drill	Farm or shop	Draw and drill.
	Tuesday	Draw and drill.	Farm or shop	Draw and drill	Shop or farm	Draw and drill.	Farm or shop.
	Wednesday	Farm or shop	Draw and drill	Farm or shop	Draw and drill	Farm or shop.	Draw and drill.
	Thursday	Draw and drill	Farm or shop	Draw and drill	Shop or farm	Draw and drill	Farm or shop.
	Friday	Farm or shop		Farm or shop		Farm or shop	
	Saturday		Farm or shop		Shop or farm.		Farm or shop
SUB-FRESHMAN.	Monday	Draw and drill	Farm or shop	Draw and drill	Shop or farm	Draw and drill	Farm or shop.
	Tuesday	Farm or shop	Draw and drill	Farm or shop	Draw and drill	Shop or farm	Draw and drill.
	Wednesday	Draw and drill	Farm or shop	Draw and drill	Farm or shop	Draw and drill	Farm or shop.
	Thursday	Farm or shop	Draw and drill	Farm or shop.	Draw and drill	Farm or shop	Draw and drill.
	Friday		Farm or shop		Shop or farm		Farm or shop.
	Saturday	Farm or shop		Farm or shop		Farm or shop	
FRESHMAN.	Monday	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop.
	Tuesday	Draw and drill	Draw and drill	Draw and drill.	Draw and drill	Draw and drill	Draw and drill.
	Wednesday	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop.
	Thursday	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill	Draw and drill.
	Friday						
	Saturday	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop	Farm or shop.
SOPHMORE.	Monday	Draw and drill	Draw and drill.	Draw and drill	Draw and drill	Draw and drill	Draw and drill.
	Tuesday	Farm or shop	Farm or shop	Farm or shop	Farm and shop	Farm or shop	Farm or shop.
	Wednesday	Draw and drill	Draw and drill.	Draw and drill	Draw and drill.	Draw and drill	Draw and drill.
	Thursday	Farm, shop or biological laboratory	Farm, shop or biological laboratory	Farm, shop or biological laboratory	Farm, shop or biological laboratory	Farm, shop or biological laboratory	Farm, shop or Biological laboratory.
	Friday	Farm, shop or biological laboratory	Farm, shop or biological laboratory.	Farm or shop	Farm, shop or biological laboratory	Farm, shop or biological laboratory	Farm or shop.
	Saturday						

SCHEDULE OF PRACTICAL EXERCISES—AFTERNOON WORK.—*Continued.*

CLASSICAL COURSE.

Class	Day	First Term.	Second Term.	Third Term.
Junior.	Monday	Farm, shop or chemical laboratory.	Farm, shop or chemical laboratory	Farm, shop or chemical laboratory
	Tuesday	Farm or shop and drill	Drill	Drill
	Wednesday	Farm, shop or chemical laboratory	Farm, shop or chemical laboratory	Farm, shop or chemical laboratory
	Thursday	Farm, shop or chemical laboratory and drill	Farm, shop or chemical laboratory and drill	Farm, shop or chemical laboratory and drill
	Friday	Farm, shop or chemical laboratory	Farm, shop or chemical laboratory	Farm or shop.
	Saturday		Geological survey	Geological survey
Senior.	Monday	Farm or shop and drill	Farm or shop and drill	Farm or shop and drill
	Tuesday	Farm or shop	Surveying	Surveying
	Wednesday	Farm or shop and drill	Farm or shop and drill	Farm or shop and drill
	Thursday	Farm or shop	Farm or shop	Farm or shop
	Friday	Farm or shop	Farm or shop	Farm or shop
	Saturday			

POST GRADUATE COURSES.

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS (M. A.):

Applications for this degree must have previously taken the Degree of B. A., and in addition must take, at the University, for a full scholastic year, four daily studies appointed by the Faculty.

REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (M. S.):

Applicants for this degree must have previously taken the Degree of B. S., and in addition must take, at the University, for a full scholastic year, four daily studies appointed by the Faculty.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PH. D.):

1. This degree will be conferred for distinguished attainments, as shown by examination and thesis, in any one of the five following languages: Latin, Greek, German, French and English, together with subordinate attainments in two others of the five; or for distinguished attainments in one principal and two subordinate of the following sciences: Chemistry, Physics, Geology, Biology; or, for distinguished attainments in Philosophy or in Pure and Applied Mathematics.

2. This degree shall be open to persons who have received the Degree of B. A. or B. S., at this or other reputable institutions; or C. E., or M. E., from this institution.

3. No applicant shall be admitted to examination for this degree before two full scholastic years from the date of his admission to the course shall have passed. The last of these two years must be passed by the candidate in resident study at the University.

4. Applicants for this degree must state in their application what particular line of study they wish to pursue.

5. A thesis showing original research shall be required of every applicant, the subject of which shall be announced and passed upon by a Committee of the Faculty at least one year before the time set for the final examination, and the thesis itself must be presented to the committee two months before admission to the examination. Twenty-five copies of the approved and printed thesis shall be placed in the University Library.

6. All applicants for this degree, who have previously taken the B. S., M. S., C. E., or M. E. Degree, must, by the end of the first year of the course, be sufficiently conversant with French and German to read with ease any scientific work written in these languages.

7. The fee for examination of applicants for the Degree of Ph. D. is $35; for the M. A. or M. S. Degree, $25, and for each Diploma, $5.

Department of Agriculture, Chemistry and Mineralogy.

Albert E. Menke, Superintendent.
S. S. Twombly, Adjunct Prosessor.
W. F. Bates, Foreman of Farm.

The Agricultural Department is designed and organized to give both theoretical and practical instruction in the various branches of agriculture. The farmers have realized that there is no art, profession or occupation which demands more careful study than agriculture; that special preparation is needed no less for the pursuit of agriculture than for law, medicine or divinity, and that proper provision should be made for teaching so important a subject in the State University. The question has been discussed from time to time, and its importance set forth with more or less ability, till at length the Legislature has taken the first step towards carrying out the wishes and suggestions of the farming community. It is the policy of the present management to unite practice with theory, under the belief that in no other way beneficial results can be obtained. The equipments for practical work will compare favorably with those of any other successful agricultural college. The agricultural machinery on hand is of the newest and most approved pattern. In addition to the ordinary implements we have a Victor manure spreader; rear pressure shoe drill, Aspinwall potato planter, with corn and fertilizer attachments, disc harrow, etc. The use of all this machinery is to give the student an insight into labor-saving devices, with a view to their economic employment. We have two commodious barns that will accommodate forty-one head of stock, machinery, feed, etc. There has also been recently constructed a fine dairy and ice house, built in accordance with tested plans.

On the farm the student can become acquainted with the telling points of good stock, as he can see specimens of pure Devons, Holsteins, Sussex, Jerseys, Herefords and Galloways, grade Durhams, etc. We have a large vineyard and orchard for practical horticultural work. The students are interested in and do all the practical work that occurs on either a stock, dairy, fruit or cropped farm. The purely agricultural classes in the course are Agriculture, Horticulture, Stock Breeding, Stock Feeding, Agricultural Chemistry, Veterinary Anatomy, Veterinary Science, Dairying. The various closely related branches are also provided for, as may be seen in the schedule. The following is a more detailed description of the instruction given in the different classes.

AGRICULTURE.

Reclamation of Land.—Clearing, stumping, stoning, fallowing.

Selection of farms for special purposes.

Rotation in Cropping.—Importance and necessity of rotation: principles underlying it; rotations suitable to different kinds of soil; examination and criticism of different systems of rotation.

Buildings.—Location of houses, barns and stables, stables for horse, sheep and cattle.

Implements and Machinery.—Principles in construction of implements and machinery, points to be aimed at, classification, examination and description of same.

Preparation of Soil.—Modes of preparation for different crops, modes suited to various kinds of soil.

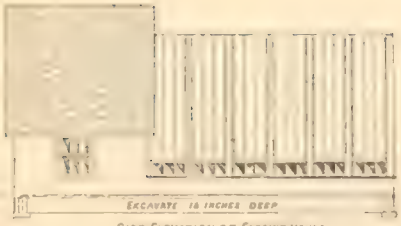
Preparation of Manures and Composts.—Home-made fertilizers.

Improvement of Lands.—Ordinary cultivation, subsoiling, fallowing, draining, manuring.

Roots.—Cultivation of roots and tubers.

Green Fodders.—Lucerne, clover, grasses, etc.

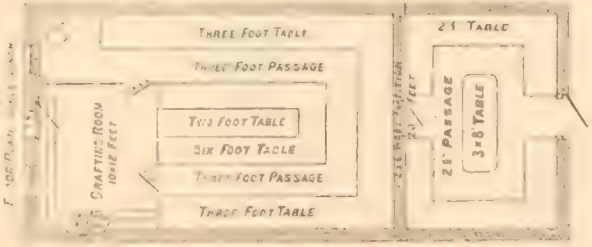
North End of Forcing House



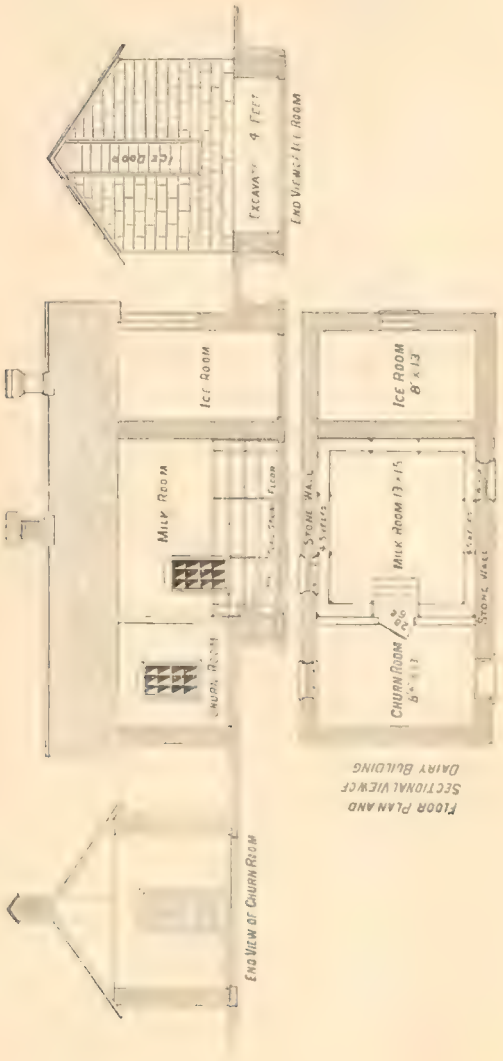
Side Elevation of Forcing House

In Side End of Forcing House

Out Side End of Forcing House



Section of Forcing House


Ice Room
Milk Room
Ice Room 8' x 13'
Milk Room 13' x 15'
Churn Room 8' x 13'
Stone Wall
Stone Wall
End View of Ice Room
End View of Churn Room
Floor Plan and Sectional View of Dairy Building

Miscellaneous.—Cultivation of various other crops, management of pastures, etc.

HORTICULTURE.

Preparation of soils for horticultural and floricultural purposes. Management of plants, including methods of preparation. Horticultural implements. Methods of obtaining new varieties of vegetables, fruits and flowers. Arrangement and care of flower and kitchen gardens, nurseries and orchards. Practical green-house work by the student supplements the lectures.

STOCK BREEDING.

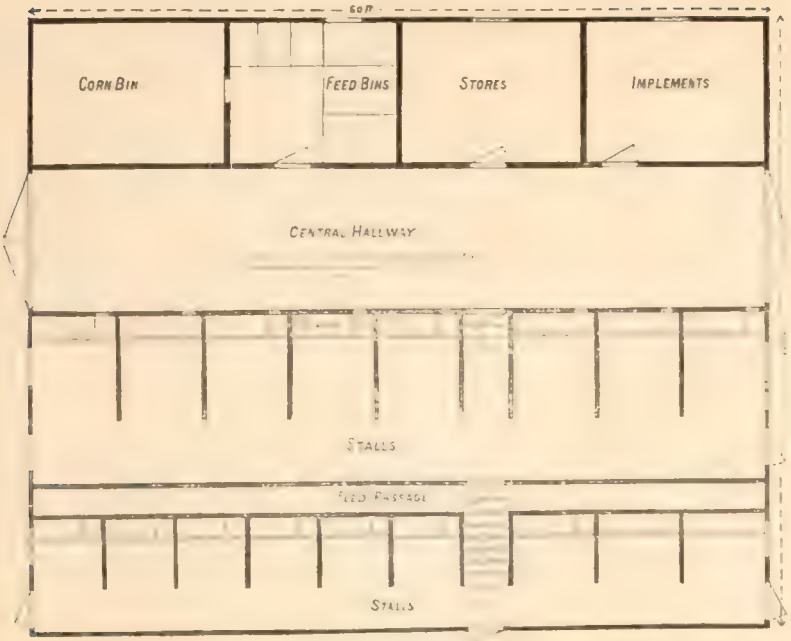
Breeding stock as an art; heredity of normal characters; heredity of diseases; heredity of acquired and abnormal characters; atavism; law of correlation; variation; fecundity; in-and-in breeding; cross-breeding; relative influence of parents; form of animals as an index of qualities, etc.

STOCK FEEDING.

Rations; nitrogenous foods, non-nitrogenous foods; principles of alimentation; effect of food on flavor of flesh, feeding young animals, money value of feeding stuffs; how to compound a ration economically, soiling, the economy of young beef, cost of beef, the ingredients; gain per day, the fat stock shows, summer feeding, feeding dairy cattle, feeding work stock, feeding horses, sheep, swine, effect of food on quantity of milk, etc.

VETERINARY ANATOMY.

A knowledge of the structure of the horse and other domesticated animals is acquired in this class. The instruction comprises lectures and demonstrations. The lectures include: First, a description of the locomotary apparatus, viz: the bones, articulations and muscles; second, a description of the viscera; third, a description of the relations of the blood vessels and nerves, and of the brain and organs of the senses.



Plan of A. I. U. Barn

VETERINARY SCIENCE.

This course includes (to the extent useful to the practical agriculturist) the physiology of the various farm animals, their pathology or principal diseases, constitutional and local, and their treatment; the general principles to be followed in acute diseases in absence of professional assistance; the nursing and dieting of sick animals. The lectures are illustrated by diagrams, sketches and preparations, and also by any cases that may appear on the farm.

DAIRYING.

Agreeably to the prescribed order of studies, thorough instruction is given to the students both in the theory and practice of dairying, including the effects of food on milk products, the treatment of milk and cream; the manufacture of butter and cheese according to the principal systems, with practical demonstrations of the uses of implements and machines.

SIDE ELEVATION OF CATTLE BARN

CHEMISTRY.

The Chemical Laboratory consists of a commodious lecture room, provided with water-sinks, pneumatic troughs, tables for illustration and cases for chemicals and apparatus; two analytical laboratories with work-tables, desks, shelves and drawers for forty students, water and gas supply, vacuum pumps, hoods, etc., and a balance room containing two pairs of Becker's best chemical balances.

The course embraces inorganic, organic, analytical, agricultural and industrial chemistry. Instruction is given by means of text books, lectures, class illustrations and laboratory practice. A general idea of the course may be gleaned from the following synopsis:

Agricultural Chemistry.—Soil, air and water in their relations to the plant. The food of plants; manures, general and special; chemical principles of tillage, irrigation, systems of rotation and of special crops and farms; the means of determining fodder, values, etc.

Industrial Chemistry.—Lectures on e manufacture of technical p oduc .

Inorganic Chemistry.—This class is instructed in thorough sympathy with the views of Mendeljeff, Luther Meyer and Thomsen on modern chemistry.

Organic Chemistry.—Constitution of organic compounds; hydrocarbons; alcohols; aldehydes, acids and their derivatives; constitution of oils and fats, sugars, starch, cellulose, albuminoids, essential oils, alkaloids, etc.

Practical Chemistry.—During the first term of the junior year the student becomes acquainted with the methods and literature of qualitative analysis. The practical work is taught by laboratory practice and lectures. The second and third terms of this year are devoted to quantitative chemical analysis, the instruction being given by similar methods. The laboratory work begins with the determination of metals in simple compounds, followed by analyses of ores, commercial fertilizers, milks, food products, etc. During the last term a short course in assaying is given.

MINERALOGY.

The mineralogical laboratory is provided with work tables, blow pipes and lamps for twenty students, and other facilities for the determination of minerals. This laboratory also contains combustion, crucible, muffle and roasting furnaces for both coal and gas, water supply, hoods, vacuum pumps, ore crusher, grinder and samplers, and is provided with Bunsen burners.

The study of mineralogy includes the study of crystallography with the occurrence, properties, forms and uses of the principal minerals. Determinative mineralogy forms the most important part of the course, and is studied practically with the aid of lens, magnet, blow-pipe and simple analysis. Especial attention is given to the determination of the minerals and the assaying of the ores of the State.

AGRICULTURAL JOURNALS.

We believe that the mind is strengthened by the intelligent perusal of good papers, and also that the farmer who reads the best agricultural papers will be able to intelligently realize the

experience of others. We keep the following list of papers on file for the benefit of agricultural students in particular:

Rural and Workman, Little Rock, Ark.
Arkansas Stockman, Little Rock, Ark.
Breeder's Gazette, Chicago, Ill.
Farmer's Review, Chicago, Ill.
American Farmer, Baltimore, Md.
Southern Cultivator, Atlanta, Ga.
Prairie Farmer, Chicago, Ill.
Texas Stockman, San Antonio, Texas.
Breeder's Journal, Beecher, Ill.
Grange Bulletin, Cincinnati, O.
Rural World, St. Louis, Mo.
Journal of Agriculture, St. Louis, Mo.
Industriallist, Manhattan, Kan.
Country Gentleman, Albany, N. Y.
Canadian Entomologist, Toronto, Ont.
Kentucky Stock Farm, Lexington, Ky.
Live Stock Journal, London, England.
Chemical Society's Journal, London, England.
Royal Agricultural Society's Journal, London, England.

The majority of the above journals are donated by their respective publishers, to whom we are very thankful.

TABLE SHOWING DISTRIBUTION OF TIME IN SHORT AGRICULTURAL COURSE.

SUBJECT.	CLASS.				Total Hours.
	A.	Sub-Fresh	Fresh-man.	Sopho-more.	
English, History, etc	390	195	130	130	845
Mathematics	130	130	130	..	390
General Science	....	195	173⅓	130	498⅓
Agricultural Sciences	....	....	86⅔	260	346⅔
Drawing	195	195	195	195	780
Farm Work	260	260	173⅓	130	823⅓
Laboratory Work	....	....	86⅔	130	216⅔
Shop Work	130	130	130	130	520
Theoretical Work	520	520	520	520	2080
Practical Work	585	585	585	585	2340
Total Work	1105	1105	1105	1105	4420

TABLE SHOWING DISTRIBUTION OF TIME IN B. S. A. COURSE.

SUBJECT.	CLASS.						Hours
	A.	Sub-Fresh	Fresh-man.	Sopho-more	Junior	Senior.	
English, History, etc.	390	195	130	130			
Mathematics	130	130	130	86⅔			
General Science		195	216⅔	216⅔			
Agricultural Sciences			43⅓	86⅔			
Drawing	195	195	195	195			
Farm Work	260	260	173⅓	130			
Laboratory Work			86⅔	130			
Shop Work	130	130	130	130			
Theoretical Work	520	520	520	520			
Practical Work	585	585	585	585			
Total Work	1105	1105	1105	1105			

TEXT AND REFERENCE BOOKS.

Soph. Inorganic Chemistry.—Richter, Wurtz, Muir, Miller, Roscoe and Schorlemmer.

Organic Chemistry.—Remsen, Richter, Beilstein, Roscoe and Schorlemmer.

Analytical Chemistry.—Jones, Fresenius, Caldwell and Babcock.

Mineralogy.—Brush, Dana.

Agriculture.—Warrington, Gulley, Allen, Storer, Tanner

Horticulture.—Downing, Bailey, etc.

Veterinary Anatomy.—Strangeway, Cheveau.

Veterinary Science.—Williams, McFadden.

Stock Breeding.—Miles.

Stock Feeding.—Stewart, Armsby.

Dairy Husbandry.—Stewart, etc.

Department of Mechanic Arts and Engineering.

J. M. Whitham, Professor.
W. E. Anderson, Adjunct Professor.
J. W. Mayo, Instructor in Metal Work.
P. H. Babb, Instructor in Wood Work.
L. C. Gardiner, Instructor in Forge and Foundry.
Lee Treadwell, Instructor in Field Engineering.

Courses of instruction are offered in

1. Manual Training.
2. Mechanical Engineering.
3. Civil Engineering.

1.—COURSE IN MANUAL TRAINING.

The course in Manual Training, covering four years, is intended to prepare young men to obtain employment in the machine shop, forge and foundry, and at the wood-worker's bench. It replaces the old apprenticeship system, and, at the same time, gives the youth instruction in English, mathematics, science, drawing, the principles of mechanism and steam-engineering. The recent growth of manual training schools, not only here, but in Europe, is phenomenal. The apprenticeship system is now practically obsolete; hence the need of manual training schools. The only opportunity offered to the youth of the State to obtain this instruction is given here.

The theoretical instruction given in the morning is indicated on page 27. That of the afternoon consists of practice for five hours a week in drawing, and ten hours in the training shops.

TABLE SHOWING THE DISTRIBUTION OF TIME IN HOURS IN THE MANUAL TRAINING COURSE.

SUBJECTS.	CLASS.				
	A	Sub Freshman.	Freshman.	Sophomore.	Total Hours.
English History, etc	390	247	130	86⅔	853⅓
Science		143	130	86⅔	359⅓
Pure Mathematics	130	130	130	130	520
Applied Mathematics			130	216⅔	346⅔
Shop Work	390	390	390	346⅔	1516⅔
Free-Hand Drawing	195	195			390
Mechanical Drawing			195	195	390
Laboratory Work				43⅓	43⅓
Total Theoretical Work	520	520	520	520	2080
Total Practical Work	585	585	585	585	2340
Total Work	1105	1105	1105	1105	4420

The subjects taught in the training shops, are 1, carpentry and joinery; 2, wood turning; 3, cabinet making and practical carpentry; 4, pattern making; 5, foundry work; 6, forging; 7, metal fitting; 8, machine tool work; 9, care of steam machinery. The distribution of these subjects through at the four years is shown in the following:

SCHEME SHOWING COURSE OF SYSTEMATIC INSTRUCTION IN THE WORK SHOPS.

Class.	Section.	First Term.	Second Term.	Third Term.
A	A	Principles of Carpentry and Joinery.	Wood Turning, ½ term. Practical Cabinet and Carpentry Work.	Practical Cabinet and Carpentry Work
A	B	Wood Turning, ½ term. Principles of Carpentry and Joinery, ½ term.	Principles of Carpentry and Joinery, ½ term. Practical Cabinet and Carpentry Work.	Practical Cabinet and Carpentry Work.
	C	Principles of Carpentry and Joinery, ½ term. Wood Turning.	Principles of Carpentry and Joinery, ½ term. Practical Cabinet and Carpentry Work.	Practical Cabinet and Carpentry Work.
Second Year Students.	A	[illegible]	Forging, ½ term. Foundry Work, ½ term.	Foundry Work.
	B	Foundry Work	Foundry Work, ½ term. Forging, ½ term.	Forging.
Junior Students.	A	Foundry Work.	Pattern Making.	Metal Fitting.
	B	Metal Fitting.	Foundry Work.	Pattern Making.
	C	Pattern Making.	Metal Fitting.	Foundry Work.
[illegible]		Machine Tool Work—engine lathe, planers, drilling machine, milling machine, etc.	Machine Tool Work—engine lathe, planers, drilling machine, milling machine, etc.	Machine Tool Work—engine lathe, planers, drilling machine, milling machine, etc.

†One student from this class is with engine and boiler.

Junior and Senior students have an advanced course in the various shops.

EQUIPMENTS OF THE MANUAL TRAINING SHOPS.

The training shops are located in the basement of the main building, and are conveniently arranged and well equipped. There are four principal shops, viz.: The wood-working foundry and moulding, the forging and the machine shops; also, there are other rooms auxiliary to these, as the engine and boiler rooms, the tool room, cloak room, finishing room, and supply rooms. In equipping these shops, those institutions of

a similar nature were studied, compared and improved upon as much as circumstances would permit.

The Wood-Working Shop is equipped with sixteen well appointed work-benches with tools, seven turning lathes, one double circular saw, one scroll saw, one band saw, one reversible shaping machine, one planing machine and one steam glue heater.

The Equipments of Forging Shop at present consist of seven forges of the most improved design, seven anvils and seven sets of tools, consisting of hand hammer, tongs, calipers, steel rule, steel square, hot and cold cutters, file, flatter, tullers, swadges, punches, heading tools, etc. The forges are supplied with power blast, a No. 6 Buffalo blower serving for this purpose. A twenty-four-inch exhaust fan aids the draft of the chimney and serves to keep the room free of smoke and noxious gases.

The Moulding Room and Foundry are equipped with a Collan cupola which will melt from 200 pounds to one ton of iron at once, one brass furnace, nine sand troughs and moulders benches combined, nine sets of moulders tools, consisting of heart and square trowel, slickers, rammers, riddle, flask, swab, water pot, shovel, lifters, drawer, spikes, etc., six ladles from 100 to 5 pounds capacity, an assortment of flasks and other necessaries for a complete foundry.

The Equipments of the Machine Shop are ten work benches with vises, sets of tools and closets, one twelve inch engine lathe, three fourteen-inch engine lathes, one nineteen-inch engine lathe, one speed lathe, one planer 24x24x72 inches, one planer 10x10x24 inches, one Universal milling machine (B & S.), one double wheel emery grinding machine, one drill press, one grinding stone and chucks and other appliances for use on the lathes, planers, etc. Each machine has its distinct set of tools. This shop is well equipped with hammers, steel rules, steel squares, spring dividers, chisels, twist drills, taps, dies, tap wrenches, die stocks, reamers, pipe dies, files of all sizes and shapes, wrenches, arbors, lathe dogs, squares, scales,

calipers inside and outside, machine and hand-cutting tools, a surface gauge, a Victor micrometer caliper, a protractor and many other tools.

The Engine Room contains a 25-horse power Westinghouse engine, Blake pump and steel boiler. It is supplied with an indicator, registering steam gauge and other necessary appliances.

CAPACITY OF THE SHOPS.

Fifty students can be accommodated in the shops at one time, divided among the rooms as follows:

Wood-working Room	20
Metal-working Room	14
Forging Room	7
Foundry	7
Tool Room	1
Engine and Boiler Room	1

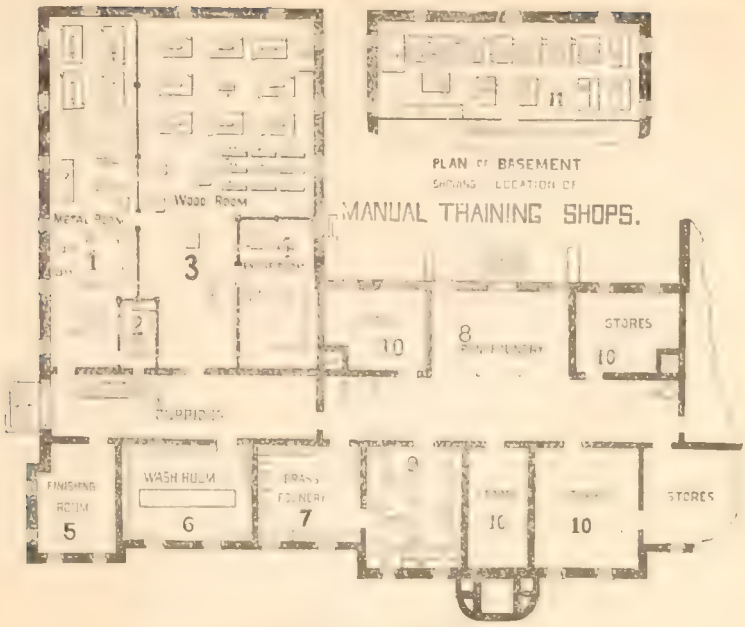


TABLE OF REFERENCE.

1. Metal Room.

1. Double work bench.
2. Planer 24x24x72
3. Planer 10x10x22.
4. Lathe 19x9 ft.
5, 6, 7. Lathes 14x6 ft.
8 Speed Lathe 10x3 ft.
9. Grindstone.
10. Double emery grinder.
11. Drill press, 16 inches.
14. Universal milling machine, (B. and S.)

2. Tool Room.

3. Wood Room.

15. Double benches.
16. Steam glue pot
17. Band saw.
18 Scroll saw
19. Reversible shaping machine.
20. Lathes 12x5 ft
21. Double circular saw (W., R. and R.)
22. Planer 12 inches.

4. Engine Room.

Westinghouse engine, 25-horse power.
Boiler 4x16 ft
24. Blake pump

5. Finishing Room.

6. Wash Room.

7. Brass Foundry.

26. Moulding troughs
27. Brass furnace
37. Core table.
28. Buffalo blower, 26 in

8. Iron Foundry.

29. Collan cupalo, 28 in.

9. Forge Room.

30. Exhauster.
31. Buffalo forges.
32. Anvil's.
33 Chimneys
38 Bench
39 Closets.

10. Store Rooms.

11. Drawing Rooms (up stairs.)

34, 35. Double drawing tables
36. Drawing board rack.
40. Sink.

II.—COURSE IN MECHANICAL ENGINEERING.

Mechanical engineering may be defined as being the application of mathematics to science, with particular reference to the *design and fabrication* of all forms of machinery. Since engineering is the combined science and art of utilizing the forces and materials of nature, and since this utilization is accomplished in nearly all cases by machines, or by processes working through machines, it is evident that *mechanical engineering is the basis of all art and industry.*

The course of study is published on page 29. It is based on the belief that a mechanical engineer should be a mathematician, a scientist, a draughtsman and a mechanic. The course extends over six years, and consists of *3120 hours devoted to theoretical, and 3510 hours to practical instruction.* The distribution of time among the several branches, both theoretical and practical, is shown in the following:

TABLE SHOWING DISTRIBUTION OF TIME IN HOURS IN THE MECHANICAL ENGINEERING COURSE.

SUBJECT.	CLASS.						
	A.	Sub Freshman.	Freshman.	Sophomore.	Junior.	Senior.	Total Hours.
English History, etc.	390	247	130	86⅔			853⅓
Science		143	130	173⅓	130	86⅔	663
Pure Mathematics	130	130	130	130	130		650
Engineering Studies			130	130	260	433⅓	953⅓
Shop Work	390	390	390	303⅓	43⅓	390	1906⅔
Drawing	195	195	195	195	97⅓	195	1072⅓
Surveying, Practice				86⅔			86⅔
Laboratory Work					444⅓		
Theoretical Work	520	520	520	520	520	5	
Practical Work	585	585	585	585	585		
Total Work	1105	1105	1105	1105	1105	1105	6630

In addition to the above, students may take French and German as elective studies.

The courses in mechanical and civil engineering differ only in the work of the junior and senior years. Even during these years many subjects are included in both. The branches studied are named on page 29, and described on page 59.

III. COURSE IN CIVIL ENGINEERING.

Civil engineering, as here understood, embraces the location and construction of railroads, canals, water works, sewage systems, foundations on land and in water, tunnels and superstructures; the surveys, improvements and defenses of coasts, harbors, rivers and lakes; the application of mechanics, descriptive geometry and graphics to the design and construction of arch bridges, roofs, trusses and suspension bridges; the design and fabrication of wind, hydraulic and electric motors, and air and heat engines; irrigation and drainage of lands; and the preparation of forms of specifications and contracts.

The course of study, published on page 31, is believed to compare favorably with that in many of the older institutions of technology. It is decidedly a *practical* course, and the graduate is well equipped for the duties of an engineer. He is, also, an excellent draughtsman and mechanic. The time in *hours* devoted to theoretical and practical instruction is shown in the following:

TABLE SHOWING DISTRIBUTION OF TIME IN HOURS DEVOTED TO STUDIES IN THE CIVIL ENGINEERING COURSE.

SUBJECT.	CLASS.						
	A	Sub-Freshman.	Freshman.	Sophomore.	Junior.	Senior.	Total Hours.
English History, etc.	390	247	130	86⅔	.....	.....	853⅔
Science	.....	143	130	173⅓	216⅔	86⅔	749⅔
Pure Mathematics	130	130	130	130	130	.....	650
Engineering Studies	.....	.....	130	130	173⅓	433⅓	866⅔
Shop Work	390	390	390	260	.....	260	1690
Drawing	195	195	195	195	65	195	1040
Surveying, Practice	.....	.....	.....	130	216⅔	130	476⅔
Laboratory Work	.....	.....	.....	.....	303⅓	.....	303⅓
Total Theoretical Work	520	520	520	520	520	520	3120
Total Practical Work	585	585	585	585	585	585	3510
Total Work	1105	1105	1105	1105	1105	1105	6630

In addition to the above, students may take French and German as elective studies.

ENGINEERING STUDIES FOR THE MECHANICAL AND CIVIL ENGINEERING COURSES.

SURVEYING, as a study, covers two terms. It embraces the care, use and adjustments of instruments, and the elements of land, topographical, hydrographic, mining, city, and geodetic surveying. *Text-Book*—Johnson. The course of surveying practice in the field covers three years, aggregating 170 hours. It is divided as follows:

Sophomore Year.—Use of chain, tape, compass, transit, solar attachment, level, sextant and plane table. The students have exercises in land, city, topographical, mining and hydrographic surveying.

Junior Year.—Road engineering consisting of reconnoisance, preliminary survey, location, profiling, establishing grade, location of curves and turnouts, cross-section leveling, locating slope stakes, measuring embankments and cuts, estimates of volume and materials used in construction, improvement of highways, location and estimates for tunnels.

Senior Year consists of:

1. Sanitary survey of Fayetteville, embracing estimates of material required and cost of construction of a complete sewerage system.

2. Geodetic surveying, embracing location of base line, repeated measurements of base by various methods, location and establishment of signals, manufacture and location of station marks, measuring, distributing errors and correcting angles, tertiary triangulation of the neighborhood, geodetic and precise spirit leveling.

3. Hydraulic surveying, consisting of location of waterworks for the city of Fayetteville, embracing complete details, estimates and costs.

ROAD ENGINEERING consists of a term devoted to the description of the various forms and methods of constructing roads, streets and pavements, followed by two terms' study of railroad location and maintenance. The *text books* used are Gilmore, Johnson (for earthwork and topography), Searles (for

curves and turnouts), Parson (for maintenance of way). The text books are supplemented by lectures, notes and exercises.

Sanitary Engineering consists of a term devoted to the study of the separate and combined systems of sewerage and constructive details. This is followed by the designing of a sewerage system for Fayetteville, as already stated. *Text books:* Latham, Staley and Pierson.

Hydraulic Engineering is studied with special reference to the design and location of waterworks. It comes at the last of the course, in order that stand pipes, retaining walls, dams, etc., may be properly designed. The study is illustrated by the design of waterworks for Fayetteville. *Text book*, Fanning.

Arches and Dams are made a special study for one term. Greene's work on Arches (graphical) is used, while it is supplemented by the study of existing structures. No text book is used in the study of dams, but the literature found in the numerous engineering periodicals, and existing structures, form the basis for the class instruction.

Bridge Engineering covers two terms and is taught analytically and graphically. Numerous exercises are required illustrating nearly every form of bridge used for highways or railroads. *Text books*, Burr, Waddell.

The constructive details are studied from blue prints, etc., kindly supplied by various bridge building establishments.

Study of Engineering Works:—One term is devoted to the special study of recent engineering structures, prominence being given to the various forms of foundation and tunnels. It also embraces the study of the actual use of coffer dams, caissons, jetties, irrigation canals, etc. *Text books*, engineering periodicals.

Specifications and Contracts:—The forms used in writing specifications and the law of contracts are studied in detail. The text book (Haupt) is supplemented by a study of the specifications and forms for contracts for recent structures.

Materials of Construction cover one term. It embraces the metallurgical treatment of ores, and the methods

of testing the various materials used in construction. The text book (Thurston) is supplemented by the study of the various papers on this subject, contributed to the proceedings of the various societies of engineers.

STEAM ENGINEERING is taught from a descriptive standpoint to the civil engineering students. *Text book*, Holmes.

For mechanical engineering students it embraces two terms of descriptive study. *Text books*, Holmes, Wilson (boilers); one term on thermodynamics; *text book*, Rankine (the subject of heat having been previously made a special study); one term to boiler design, taught by lectures; one term to steam engine design. *Text book*, Marks, supplemented by lectures, and one term the study of Valve Gears (lectures).

TESTS OF STEAM MACHINERY:—This is taught without a text book, and consists in the study of the report of tests made by engineers, and the actual testing of machinery used in the shops and elsewhere.

MECHANISM:—One term is devoted to the elementary principles. *Text book*, Goodeve, and two terms to the study of machinery and mill work. *Text book*, Rankine.

MECHANICS:—One term is devoted to the elements. *Text book*, Peck's supplemented by teacher's notes, and two terms to applied mechanics. *Text book*, Rankine. Mechanics is taught from a purely calculus standpoint.

FRICTION AND LOST WORK is studied for one term. Particular attention is given to the tests and comparative values of lubricants, the various forms of bearings, and an analysis of the frictional losses in machinery. *Text book*, Thurston, supplemented by lectures and study of papers contributed to the engineering societies.

ELECTRICAL ENGINEERING.—See description on page —, under the heading, Department of Physics. *Text books*, Kemp, Day.

DRAWING.—Free-hand drawing is taught during the preparatory years, five hours each week. Instrumental drawing

is required during four years for all male students in the college department, irrespective of course of study.

The following college course is for engineering students, and is somewhat modified for students in other departments, as is shown to be necessary:

Freshmen Year.—Instruction in use of instruments, practice in reading, drawings, construction of geometrical figures, elements of mechanical drawing. Great prominence is given to the study of descriptive geometry.

Sophomore Year.—Mechanical drawing during the first term, and topographical drawing during the second and third terms.

Junior Year.—Architectural drawing, linear and isometrical projections.

Senior Year.—Each student makes a design and general and detailed drawing of some structure, such as a bridge or steam engine.

The draughting room is equipped with tables, stools, planimeter, pantograph and blue print frame. Materials are kept on hand and supplied to students at catalogue rates. Drawing instruments are purchased at 20 per cent discount.

ENGINEERING PERIODICALS.

The following engineering periodicals, nearly all of which are donated to the department, are taken for the use of the students, viz.:

1. London Engineering.
2. Engineering News.
3. The Sanitary Engineer.
4. Scientific American Supplement.
5. Scientific American.
6. Scientific American Architects and Builder's Edition.
7. American Machinist.
8. The American Engineer.
9. The Stationary Engineer.
10. Mechanics.
11. Master Steam Fitter.
12. The Western Electrician.
13. The National Contractor
14. Fire and Water.
15. The Cincinnati Artizan.
16. Carpentry and Building.

17. Boston Journal of Commerce.
18. The Marine Journal
19. The Tradesman
20. The Locomotive
21. Proceedings of the Institution of Civil Engineers (England).
22. Proceedings of American Society of Civil Engineers.
23. Proceedings of American Society of Mechanical Engineers.
24. Proceedings of American Institute of Mining Engineers.
25. Journal of the Association of Engineering Societies.
26. Journal of the New Englaud Waterworks Association.
27. Proceeding of the American Waterworks Association.
28. Proceedings of the Master Car Builders' Association
29. National Car and Locomotive Builder.
30. Proceedings of Philadelphia Engineer's Club.
31. Proceedings of American Railway Master Mechanics' Association.
32. Proceedings of Roadmaster's Association of America.
33. Proceedings of Engineering Societies in Canada, Michigan, Ohio, Indiana, Illinois, Iowa, Missouri, Arkansas, etc.

DONATIONS.

In addition to the numerous papers just named, the following donations have been received recently, viz.:

15 Vols. of Proceedings of American Institute of Mining Engineers.
12 Vols. of Proceedings of American Society of Civil Engineers.
5 Vols. of Proceedings of American Society of Mechanical Engineers.
9 Vols. of Proceedings of Institution of Civil Engineers (of England).
16 Vols. of Proceedings of Master Car Builders' Association.

For the Engineering Museum—

1 Dean Steam Pump, and Blue Prints.
1 Blake Steam Pump.
1 Knowles Steam Pump.
1 Thompson Water Meter.
1 Crown Water Meter.
1 Hersey Water Meter.
150 Models from United States Patent Office.
1 Section of vitrified Culvert Pipe, 18x30 (Blackmer & Post).
1 Set of samples of Rubber Hose and Belting (N. Y. Belting and Packing Co.).
3 Complete Sets of Bridge Drawings (Phœnix and King Bridge Companies.)

THE GORDON ENGINEERS' CLUB.

This club was organized in September, 1887. Its members pursue the engineering courses. Weekly meetings are held in the engineers' reading-room, at which time lectures are given by the students in turn. The subjects recently discussed are "The Vosburg Tunnel," "Maintenance of Way," "Manufacture of Bessemer Steel at Chicago," "Construction of Dams," etc.

During this session the following lectures have been delivered before the club, in addition to those given by the students, viz.:

1. "Engineering as one of the Learned Professions," by Prof. J. B. Johnson, St. Louis, Mo.

2. "Engineering Education," by J. A. L. Waddell, consulting engineer, Kansas City, Mo.

3. "How to Become a Successful Engineer," by J. A. L. Waddell, consulting engineer. Kansas City, Mo.

4. "Design of Highway Bridges," by J. A. L. Waddell, consulting engineer, Kansas City, Mo.

5. "Inter-Oceanic Ship Transfer Problem," by Robert Moore, consulting engineer, St. Louis, Mo.

6. "Arkansas River Improvements," by H. S. Taber, Captain of Engineers, U. S. Army.

The Gordon Club may be considered as a chapter of the Arkansas Society of Engineers, Architects and Surveyors, since many of its members belong to the *student grade* of that society.

PHYSICS.

J. M. Whitham, Professor.
W. E. Anderson, Adjunct Professor.

This course embraces recitations upon text books, lectures, class illustrations and experiments in the Physical Laboratory. The general course extends throughout the Freshman year, and consists of the study of the branches known as heat, light, sound, electricity and magnetism, and mechanical powers.

Heat is studied during one term of the Sophomore year as being essential to the engineering course, while in the Senior year, electrical engineering is taught.

Text and Reference Books.—Worthington's Physical Laboratory Practice, Meyer's Experiments in Light and Sound,

Pickering's Physical Measurements, Olmstead's Natural Philosophy, Tyndall on Light, Sound and Heat, *Larden's Heat*, Stewart's Heat, Sylvanus Thompson's Electricity, Day's Electric Light Arithmetic, Day's Exercises in Electrical Measurements, Murdock's Notes on Electricity and Magnetism, *Kempe's Hand-Book of Electrical Testing*, *Ganot's Physics*.

DEPARTMENT OF PSYCHOLOGY, ETHICS AND POLITICAL ECONOMY.

PRESIDENT MURFEE.

PSYCHOLOGY AND ETHICS.

These important studies are taught inductively, no theory or doctrine being urged for acceptance which is not based upon a philosophical induction from the facts of consciousness. The student is taught to subject every statement of fact or principle to the test of his own experience. The fullest and freest discussion of opposing views is encouraged.

POLITICAL ECONOMY.

The aim is to give a succinct statement of the undisputed principles of political economy, and to discuss conflicting views with all possible fairness.

TEXT AND REFERENCE BOOKS.

Psychology—Bascom, Marvin, Porter, Sir William Hamilton.
Ethics—Alexander, Dagg, Bascom, Porter, Calderwood.
Political Economy—Chapin, Mill, Say, Perry.

DEPARTMENT OF MATHEMATICS, LOGIC AND ASTRONOMY.

E. H. Murfee, Professor.
O. C. Gray, Professor-elect.
J. F. Howell, Assistant.
G. W. Droke, Assistant.

MATHEMATICS.

This subject should be taught both practically and logically, thus promoting scientific investigation and mental discipline. It is not enough to find "answers," but the deductions must be based on established principles. First, the pupil performs the work in imitation of the teacher or author; then comparing facts learned, he reasons on the subject, consults the text and book of reference, makes the deduction, and applies the law to new cases. The power of original investigation and the faculty of invention are thus strengthened, and the student, by the inductive process of combining known principles and making new deductions, can anticipate the author in his demonstrations

For admission into the Freshman Class, the applicant must pass satisfactory examination in Arithmetic and in Algebra to Quadratic Equations. It is desirable that he should have studied three books in Geometry, and that he should have been thoroughly drilled in Mental Arithmetic.

All students must supply themselves with drawing instruments; for [illegible] which at least the dividers and protractor are essential.

TEXT BOOKS AND BOOKS OF REFERENCE.

Algebra—Robinson's University, Wentworth's Complete, Wells' University.

Geometry—Wentworth, Loomis, Welch and Chauvenet.

Trigonometry—Schuyler, Wells and Wentworth.

Analytical Geometry—Loomis and Todhunter.

Calculus—Loomis, Church and Byerly, Williamson.

ASTRONOMY.

A term is devoted principally to Descriptive Astronomy, together with as much Practical as possible in so short a period.

The subject is made interesting and profitable by the use of maps, globe, astral lantern, equatorial telescope, sextant and solar compass.

Text and Reference Books: Olmstead's College Astronomy, Bowen's Astronomy of Observation, Newcomb and Holden's Astronomy, Coffin's Navigation and Nautical Astronomy, the Nautical Almanac, Loomis' Astronomy, periodical, Siderial Messenger.

LOGIC.

Logic is taught both from text books and by lectures. Students are required to show its application in various scientific investigations. Essays from different authors are analyzed and discussed, with a view to the appreciation of sound reasoning and the detection of fallacies. Original discourses are required of students to impress the principles taught. In this way a subject, ordinarily regarded as dry, is made of the liveliest interest.

Text Books and Books of Reference: Jevon-Hill, McCosh, Mill and Hamilton.

DEPARTMENT OF HISTORY, ENGLISH, FRENCH AND GERMAN.

HOWARD EDWARDS, Professor.
W. N. CROZIER, Instructor in English.
MISS IDA PACE, Instructor in English.

ENGLISH.

The work of the English course is assigned to the Freshman, Junior and Senior classes.

For entrance into the Freshman class a full knowledge of elementary grammar, composition, and analysis, is required.

and the student is expected to be able to express himself with a fair degree of ease and clearness.

The work of the Freshman year is obligatory in all courses of study. It will consist of two terms on Rhetoric and one term on Historical Grammar. Every effort will be made to render the course rich in practical results. To this end continuous graded exercises, or essays, promptly applying and drilling in the principles learned in the text book, constitute a prominent feature thereof.

The Junior year of the course is obligatory only on the students of the A. B. course. It consists of two terms devoted to the study of the History of English Literature, together with original work on as many of the masterpieces of the language as the varying time will allow, and one term employed in the detailed consideration of Chaucer and Shakespeare.

The Senior year is philological in its bent. It will consist of one term on Anglo-Saxon, one term on Middle English, and one term on English Philology as such. The written exercises in the Junior and Senior year will consist of original investigation of questions connected with and [illegible] a chief part of the class work. In this kind of work, the Library, containing as it does, the masterpieces of our [illegible] from the earliest times down, is of invaluable assistance, and forms the main and most valued auxiliary of instruction. Students are referred, as far as possible, to the original sources, and taught to investigate for themselves.

Text Books.—Clarke's Practical Rhetoric, Morris' Historical English Grammar, Stafford Brooke's Primer of English Literature, Ward's English Poets, Sweet's Anglo-Saxon Primer, Sweet's Reader, Morris' Specimens of Early English, Earle's Philology.

HISTORY.

The work in History is done entirely in the Sophomore year. One term is devoted to each of the usual divisions of Universal History. While, by the use of a text book, and a rapid course of lectures, the general flow of events throughout

the world is followed, there is, besides, assigned to each student a specific period and region, which during the year's time he is required to work up thoroughly from original sources, as far as the material at hand will allow. The work of the student in the province assigned him is, at stated intervals, presented to the class in the form of an essay. Here again the Library, which is comparatively rich in historical works, is an invaluable auxiliary to the work of the course. The department is also provided with a number of accurate and beautiful maps.

The year's work in History is required in all courses except the Short Agricultural, the Manual Training, the Mechanical Engineering, and the Civil Engineering courses, when only two terms are required.

Text Book.—Labberton's Historical Atlas.

GERMAN AND FRENCH.

In consequence of the legislative enactment which requires for any course containing a language other than English, the payment of the yearly tuition fee of $10, the German and French languages have not been made obligatory in any of the courses, yet they are regarded by both the Board and the Faculty as essential parts of any scientific course, and opportunity is given the students of all courses to take them. Two years are assigned to each language. No entrance requirement is made. French is commenced in the Freshman year, and the work of the class is directed to the obtaining of a thorough familiarity with the forms of language, and a large and practical vocabulary. At the end of the Freshman year the student is expected to be able to read ordinary prose at sight; and has all the material necessary to enable him, with facility and quickness, to learn to speak the language, if he so desires.

The Sophomore class is engaged in reading and studying the classics of the language: the history of the language, the study of the syntax and idioms, and a hurried view of the historical grammar, complete the course.

German is begun in the Junior year, and the plan pursued is the same as that of the Freshman year in French. The Seniors complete the study of German, following the line of study pursued in French by the Sophomores. Daily practice in translating into French and German, and writing from dictation, form a prominent feature of class work.

Text Books: Whitney's French Grammar, Lectures on French Literature, Selections from Modern French Literature, Historical Grammar, (Brachet), Harrison's Syntax, Selections from French Classics, German Grammar (Joynes-Meissner), Lectures on German Literature, Grimms' Maerchen, Brandt's German Grammar, Selections from the German Classics.

N. B.—French and German weeklies are taken by the Library and are accessible to students. The current literature in English is also well represented. All three are made useful auxiliaries in the department.

DEPARTMENT OF BIOLOGY AND GEOLOGY.

Professor Simonds.

BIOLOGY.

The course of instruction in the Biological Sciences includes Elementary Botany, Plant Analysis, Structural and Microscopic Botany, Elementary Physiology, Human Anatomy and Physiology, Elementary Zoology, General Zoology, Entomology, and Special Research.

TEXT BOOKS.

In Botany—Gray's Series, Bessey's Botany.

In Zoology—Holden's Zoology (Elementary), Packard's Zoology (Advanced), Nicholson's Zoology (Advanced).

GEOLOGY.

The course of instruction in Geology includes Dynamical, Structural and Historical Geology, Survey Methods and Econ-

omic or Applied Geology. Field work is required of all students taking the General Course. The region adjacent to Fayetteville will be carefully studied and mapped, and that knowledge acquired which can only be attained by a personal and minute study of strata.

Text Book: –LeConte's Elements of Geology.

Frequent references are made to various works on Natural History and Geology contained in the University library, and the student in this department is expected to take advantage of the opportunity here offered to acquaint himself with the literature of the subject he may have under consideration.

The lecture room and laboratory are situated on the third floor of the main University building, north end. The laboratory is well equipped with new and costly microscopes, both dissecting and compound, and such other appliances as are necessary for carrying on Biological or Geological research.

TABULAR STATEMENT.

Sub-Freshman—Elementary Zoology, Elementary Botany, Elementary Physiology.

Freshman—General Zoology, Plant Analysis, Anatomy and Physiology (Advanced).

Sophomore—Structural and Microscopic Botany, Entomology, Laboratory.

Juniors—Geology, Laboratory.

Seniors—Special Biological Work, Economic Geology.

ANCIENT LANGUAGES.

C. H. Leverett, Professor.
M. Danaher, Instructor.

The subjects taught in this department are the Latin Language and Literature and the History of Rome, the Greek Language and Literature and the History of Greece. Authors are read in the order of their difficulty, and next written trans-

lations are required at stated intervals. The grammar and idioms of these languages are carefully studied and compared with those of English and other languages.

Marked attention is paid to the rendering of English into Latin and Greek. In the lower classes the best manuals for Latin and Greek composition are used; for the higher classes carefully graded exercises are prepared by the professor.

Due prominence is given to the study of the Latin and Greek metres. The grammars are made the basis of this instruction, but fuller explanation is given in lectures.

For admission into the Freshman Class, students should be able to read at sight and parse any passage in two books of Cæsar; must know thoroughly all the declensions and conjugations, regular and irregular, of the Latin Grammar, and the elementary principles of syntax, and should be able to translate easy sentences from English into Latin.

No Greek is required, at present, for admission.

LATIN.

Freshman Class—Gildersleeve's Grammar, Jones' Latin Prose Composition, Cæsar (Greenough or Kelsey) 7 Books, or Nepos (Cr. & Sch.) 35 pages, Virgil (Greenough) 5 Books of Æneid and selections from Eclogues, Pennell's or Smith's Smaller History of Rome.

Sophomore Class—Gildersleeve's Grammar, Jones' Prose Composition, Cicero's Orations (Harkness) 150 pages, Odes of Horace (MacLeane), Livy (Lincoln) 50 pages.

Junior Class—Gildersleeve's Grammar, Prose Composition, Livy 100 pages, Satires and Epistles of Horace (Elmer), Tacitus (100 pages).

Senior Class—Gildersleeve's Grammar, Original Exercises, Cicero's Moral Works, Juvenal (Leverett or MacLeane), Roman Literature.

Books of Reference—Harper's Latin-English Lexicon, Wm. Smith's Latin-English Lexicon, Classical Dictionary, Classical Atlas, Zumpt's, Madvig's and Roby's Latin Grammars.

Other authors may occasionally be substituted for those above when a change seems beneficial: *(e. g.)* Sallust, Ovid, Catullus, Tibullus, Propertius, Pliny, Plautus.

GREEK.

Freshman Class—Goodwin's Grammar, Whiton's Lessons Xenophon's Anabasis (Goodwin) 6 Chapters.

Sophomore Class—Goodwin's Grammar, Jones' Prose Composition, Xenophon's Anabasis 3 Books, Lysias 3 orations, History of Greece.

Junior Class—Goodwin's Grammar, Jones' Prose Composition, Herodotus (Mather) 40 pages, Homer's Iliad (Pratt and Leaf) 3 Books, Demosthenes 40 pages, Plato.

Senior Class—Goodwin's Grammar, Original Exercises, Thucydides 1 Book, Euripides 1 Play, Sophocles 2 Plays, Greek Literature.

Books of Reference—Liddell and Scott's Greek-English Lexicon (7th Oxford Edition), Yonge's English-Greek Lexicon, Classical Dictionary, Classical Atlas, Goodwin's Moods and Tenses, Hadley's or Curtius' Grammar.

Other authors may be substituted for the above.

NORMAL DEPARTMENT.

PROFESSOR HOWELL.

The design of this department is to train teachers for the schools of the State. Technical instruction is begun in the Sub-Freshman and completed in the Sophomore class, satisfactory completion of the course entitling the student to a Normal Diploma conferring the degree of Licentiate of Instruction.

The course includes all the branches required for State license by the school laws of the State, and former graduates, after successful experience in actual teaching for a reasonable time, have been granted State license by the State Superin-

tendent of Public Instruction without examination. After completing the Normal course students may take up in the Junior class the work of one of the other courses and complete for the corresponding degree.

Psychology is made the basis of technical instruction, a brief outline of this branch being given in the Sub-Freshman class, and special attention being paid to the analysis of the intellectual processes. Students are encouraged and trained to study their own mental phenomena, and to note evidences of similar phenomena in the conduct of others, especially of children. The fundamental principles of teaching as deduced from psychical facts are presented, as also general methods of teaching based on these principles. Students are required to give much attention to principles as inculcated and to methods as illustrated in approved pedagogical books and journals, a good selection of which is free of access in the University library. At the same time they are taught to avoid a slavish dependence upon the methods of others, and encouraged to devise methods of their own. Methods of teaching the common branches are illustrated with the classes, the members being selected alternately to conduct recitations, and free criticism and discussion being allowed after each.

The idea is continually made prominent that character-building should be the grand aim of the teacher. Near the end of the course a more extended outline of psychology is given, covering the more important facts of the science with which a teacher should be familiar.

Further, the aims are:

1. To unify the work of our State educational system by bringing the secondary schools and the University into close sympathy with each other.

2. To teach pupils how to organize, grade and discipline the various kinds of schools.

3. To give them a knowledge of school law, and especially of the duties of teachers as officers of the State.

4. To impart to them a valuable summary of the history of education.

5. To aid them in creating for themselves high educational ideals, based on the principles of Christianity.

Text Books: White's Pedagogy, Painter's History of Education, Baldwin's School Management, Palmer's Science of Education, Dewey's Psychology.

PREPARATORY DEPARTMENT.

Students are not admitted into the lowest Preparatory class until they are thoroughly familiar with the fundamental operations of Arithmetic, viz.: Addition, Subtraction, Multiplication and Division. In Reading they must be able to understand and intelligently render specimens of the grade of the Fourth Reader; must have a knowledge of Primary English Grammar, Primary Geography, the rudiments of Penmanship, and the spelling of ordinary words of the grade of the Fourth Reader.

Much importance is attached to Mental Arithmetic as a means for developing the power of analysis, and for strengthening the mind. Both oral and written exercises are required daily.

Daily exercises in Penmanship are required in the B class.

In the A class Geography is taught during the first term, and United States History during the second and third terms. Latin is begun by those who propose a Classical course or the complete Normal course.

Classical students are thoroughly drilled in the elements of Latin Grammar, and are carried through a Reader and two books of Cæsar, or the equivalent, by the close of the Sub-Freshman year. Students are exercised by frequent translations from the English into Latin.

Algebra and Geometry are begun in the Sub-Freshman year. In the former students are thoroughly drilled in the elementary principles, and required to master everything to equa-

tions of the second degree. In the latter three books are studied during the year.

Free-hand drawing forms a part of the regular curriculum, and is begun in the A class. Drawing has a disciplinary, as well as a practical value, and also tends to refine the taste.

Elementary science is taught throughout the Sub-Freshman year. The experience of the past in giving instruction in this line of study has been most satisfactory. The classes have been taught by the Professors of Chemistry and Biology, who have sought to give such an outline of scientific facts and principles as would prove valuable both to those students who propose to take a fuller course, and to the larger number who drop out of school before reaching the Collegiate Department.

TEXT BOOKS.

Algebra—Robinson's University.

Arithmetic—Barnes' National, Ray's Practical, Thompson's Intellectual.

Book-Keeping—Bryant and Stratton.

Botany—Gray's How Plants Grow.

Chemistry—Miller or Houston.

Drawing—White's Industrial.

English—Chittenden's Composition, Meiklejohn's English Language, Knox's Lessons in English.

Geography—Appleton's Physical, Harper's School.

Geometry—Wentworth.

History—Barnes' United States.

Latin—Jones' First Lessons, Gildersleeve's Grammar and Reader.

Penmanship—Harper's Copy Books.

Physiology—Martin's Human Body.

Reading—Barnes' and Swinton.

Zoology—Holder.

MILITARY DEPARTMENT.

PROFESSOR FLETCHER, U. S. A.

The military officers of the University consist of the President, Commandant and such assistant professors as may be assigned to duty in this department by the President. The President is head of the department, and issues, from time to time, such general and special orders as he deems necessary to the efficiency of the military exercises and to the enforcement of order in the buildings and on the grounds.

This department is designed to impart to each male student, not physically incapacitated to bear arms, theoretical and practical instruction in the school of the soldier, of the company, and of the battalion, and thereby furnish the State with a body of young men qualified to organize its militia.

The male students are required to drill, because an act of Congress for 1862, which appropriated lands to establish the University, provided that the leading branches taught should be, in addition to the usual course of study prescribed in universities, "Military Science and Tactics."

Besides, the military drill is a superior health-giving exercise, and promotes physical development, manly carriage, neatness, precision, order, and a habit of obedience, which is a valuable aid in the enforcement of discipline.

The entire body of male students is divided into companies which are officered by cadets, selected for proficiency in drill, good deportment and scholarship. The cadet officers are regarded as assistants in the enforcement of discipline, and their orders, while on duty, are considered as duly authorized, and must be obeyed accordingly.

Cadet officers are expected and required to be examples in military deportment and general good conduct.

A neat uniform, with brass buttons and suitable trimmings, is required to be worn by all males.

Parents and guardians will save money by postponing the purchase of winter suits for their children and wards until they arrive at Fayetteville.

At the competitive drills, at the end of the first term, December 8, 1887, "C" Company won the honor of carrying the Battalion Colors during the remainder of the session.

OFFICERS AND NON-COMMISSIONED OFFICERS OF THE BATTALION.

E. L. Fletcher, *First Lieut. Thirteenth U. S. Infantry, Colonel.*
G. C. Shoff, *First Lieutenant and Adjutant.*
W. N. Crozier, *First Lieutenant and Quartermaster.*
W. E. Dickson, *First Lieutenant and Ordnance Officer.*
G. A. Humphreys, *Sergeant-Major.*

"A" COMPANY.

G. A. Warren, *Captain.*
M. Danaher, *First Lieutenant.*
D. C. B. Aikin, *Second Lieutenant.*
J. A. Taff, *First Sergeant.*
H. E. Williams, *Sergeant.*
W. R. Hervey, *Sergeant.*
S. A. Horton, *Corporal.*
J. Humphreys, *Corporal.*

"B" COMPANY.

J. H. Hobbs, *Captain.*
W. W. Powell, *First Lieutenant.*
J. C. McNeeley, *Second Lieutenant.*
E. Treadwell, *First Sergeant.*
W. L. Reed, *Sergeant.*
R. Duncan, *Corporal.*
J. D. Perry, *Corporal.*

"C" COMPANY.

PRESS. BOLES, *Captain.*
N. F. DRAKE, *First Lieutenant.*
L. F. FISHBACK, *Second Lieutenant.*
R. D. HARRIS, *First Sergeant.*
WALLACE OLIVER, *Sergeant.*
OLIVER SELLERS, *Sergeant.*
A. J. NEWMAN, *Corporal.*
JOHN H. ATKINS, *Corporal.*

ART DEPARTMENT.

MISS LYON, INSTRUCTOR.

The Young Ladies' Industrial Art Studies embrace drawing, designing, modelling, wood carvings, repousse, and other decorative work. They teach the art of producing an infinite variety of objects, both useful and ornamental; in short, *whatever lies at the foundation of the industries dependent alone upon human invention, skill and handiwork.*

There has been excellent progress during the past three sessions in drawing, designing, embroidery, brass work and wood-work, and the young ladies begin to appreciate the importance of training the eye and hand in working material things for pleasure and profit.

Fine Art Studies will constitute hereafter an optional course, to be paid for at the teacher's rates, which are as follows:

Drawing, per term, two lessons per week $10
Painting, per term, two lessons per week 12
Wood Carving, per term, two lessons per week 11

COURSE IN PAINTING.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
First Year.	Drawing from Flat. Perspective.	Drawing from Flat. Object Drawing.	Drawing from Flat. Object Drawing. Designing. Wood Carving.
Second Year.	Drawing from Casts Wood Carving. Water-Color Painting.	Drawing from Casts. Water-Color Painting.	Drawing from Casts. Drawing from Life. Water-Color Painting.
Third Year.	Drawing from Nature. Drawing from Life. Oil Painting.	Drawing from Life. Oil Painting. History of Art.	History of Art. Oil Painting

MUSICAL DEPARTMENT.

Miss King, Instructor.

PIANO FORTE.

This course will require six years for completion, if the pupil possess marked talent and unceasing energy.

FIRST YEAR.

Study of the first principles of music, five-finger exercises, technic scales, and such studies as will prepare the pupil for the introduction of light classics.

SECOND YEAR.

Practical exercises and *etudes* of Duvernoy, Czerny, etc., in connection with the latest studies in technic. Grade 2.

THIRD AND FOURTH YEARS.

Advanced technical studies of Loschhorn, Pratly, etc., and studies of Heller, Clementi and Bach preparatory to moderately difficult classical composition.

FIFTH AND SIXTH YEARS.

Advanced studies of Beethoven, Clementi, Bach, etc., and difficult compositions of Schumann, Liszt, Chopin, Haydn, etc.

VOCAL CULTURE.

FIRST YEAR

Will be devoted exclusively to forming register and to producing evenness and natural tones of voice in register. Bassini's Art of Vocalization will be the studies required.

SECOND AND THIRD YEARS.

Pronunciation, timbre, science and art of breathing, diaphragm and clavicular, and art of phrasing; studies in Concone and Marche, with light selections from the operas.

FOURTH AND FIFTH YEARS.

Messo di Voce, Portamento, and other vocal embellishments; studies of Panofka, Beethoven, etc., with the more difficult selections from the operas and classic compositions of Mendelssohn.

SIXTH YEAR

Will embrace the first course in Opera Dramatic.

VIOLIN.

FIRST YEAR.

Practice of bowing, finger exercises, Manzis' Instructor

SECOND YEAR.

Etudes of Dancla and arrangements from the operas.

THIRD YEAR.

Kaiser's Etudes, Sonatas by Haydn, Schubert, etc.

FOURTH YEAR.

Krautzer's Etudes and compositions by DeBeriot, Kreutzer, etc.

TERMS,

PER SESSION OF TWELVE WEEKS

Piano Forte	$12 00
Voice Culture	12 50
Violin or Guitar	12 00
Thorough Bass and Harmony	5 50
Theory and Composition	7 50
Use of Piano one hour every day	2 35

For one lesson per week the rates are half the above, except for the use of piano.

Tuition must be paid invariably in advance.

All pupils are required to take theory as well as practice.

No deductions will be made on account of absence from [illegible] will be shared equally between student and teacher.

By a resolution of the Board of Trustees, at its recent meeting, the students of the Music and Art Departments, who have not matriculated in other departments, will hereafter be required to matriculate and pay the usual fees, and to be subject to the regulations applicable to other students.

LOCATION.

The Arkansas Industrial University is located within the corporate limits of the town of Fayetteville, Washington county. The location is thought to be unsurpassed by any other locality in the State in salubrity of climate, beauty of surrounding scenery, fertility of soil, variety and perfection of agricultural and horticultural productions, and in the [illegible] and intelligence of its people.

PROPERTY.

The property of the University consists of the proceeds of the magnificent grant of land by Congress, the bonds of Washington county, and of the town of Fayetteville, the appropriations made by the State, and the University farm lands—amounting in all to $300,000 in value.

The Main Building is one of the most magnificent structures of the kind in the south. A cut of it and a brief description can be seen on the second page of this catalogue.

ACCESSIBILITY.

Students may reach Fayetteville from both the north and the south by double daily trains on the Texas branch of the St. Louis & San Francisco Railroad, which now connect on the south with the Little Rock & Fort Smith Railroad at Van Buren.

Students, on arriving at Fayetteville, must report at once to the President of the University. No student will be allowed to recite in any class until properly enrolled but will be held responsible for his conduct from the time of his arrival in Fayetteville.

WITHDRAWAL OF STUDENTS.

Parents or guardians who wish to withdraw their children or wards from the University, should write to the President of the Faculty, stating their wishes. Unworthy students sometimes deceive the Faculty by pretending that their parents desire them to return home. No honorable discharge will be given to a student under age, who is unable to produce the written application of his parent or guardian for his withdrawal, or if his number of demerits shall exceed the proportion of two hundred allowed during the session. Nor will an honorable discharge be given to a student, under censure of any kind, whether for neglect of duty, or other cause, even though he may have the consent of his parent or guardian for his withdrawal from the University.

EXPENSES.

Students are required to board at such places as are approved by the Faculty, and are under the supervision of the President of the University. No change of boarding house will be allowed, except at the end of each term, unless under extraordinary circumstances, nor without permission of the President.

If at any time the influence of a boarding house be found pernicious, boarders will be removed at the instance of the Faculty.

Board, including fuel, lights and washing, may be had with families living in or around Fayetteville, at from $12 to $20 per calendar month. Day boarding is sometimes obtained at from $8 to $10 per month.

In order to lighten the expenses of students of limited means, the Board of Trustees, two years ago, authorized the Faculty to open a boarding house on the College grounds where good substantial fare might be furnished to from forty to fifty boys at cost. To effect this purpose, the Old Dormitory was thoroughly repaired, and the dining-room and kitchen furnished at the expense of the University. At the request of the Faculty, one of the professors took charge of the establishment at the opening of the first session, and another at the beginning of the second session. Under their supervision it was so conducted that good substantial table board was furnished the students for less than $8 per month.

Students who board on the grounds are expected to provide their own furniture, fuel and lights. Before entering the boarding house they are required to promise to conform to such regulations as to study, the preservation of order, visiting, leaving their quarters, and the care of their rooms, as may be prescribed by proper authority.

Tuition charges for students who have not beneficiary appointments, have been reduced to $10 per session of forty weeks.

All *new* students, on entering, are required to pay a matriculation fee of $5.

No student will be enrolled until all fees are paid, and no tuition fees will be refunded, except in cases of sickness causing continuous absence of not less than six weeks.

LITERARY SOCIETIES.

In the Collegiate Department there are two literary societies, the "Mathetian" and "Philomathean." Students who

are members of the Sub-Freshman class, are also eligible to membership in these.

Literary societies may be organized in the Preparatory Department under proper restrictions. At present there is but one in operation, the Garland Society.

LIBRARY AND READING ROOM.

A small but well-selected collection of books, numbering about 4,000 volumes, constitutes the Library of the University. Of this number a large percentage is made up of valuable and costly technical works for the various departments of the Institution, and the necessary purchase of these has absorbed a large part of the yearly appropriations, and seriously retarded the numerical growth of the Library.

Yet in no sense has the purchase of a full collection of technical works been attempted in any department. The most that it has been possible to do, has been to provide for the pressing needs of the hour by the thoughtful and careful expenditure of the small amount of money yearly assigned to each department. One of the most obvious and pressing necessities of the University to-day is a large and liberal appropriation from the Legislature, to provide a library suitable to the needs of the Institution and the standing of the State. A complete technical library, kept up with the course of investigation and discovery by constant additions, has always been recognized by competent authorities as one of the most indispensable means and accessories of instruction even in the most practical schools. Agriculture and mechanics have their vital literature, their full line of necessary books of reference, just as much as have Chemistry and Engineering, or Physics and Astronomy, or Mathematics and English.

Moreover, History and Polite Literature have their just and beneficent claims upon us. It is neither creditable nor pleasant to read in the report of the Commissioner of Education that Kansas, admitted to Statehood in 1861, contains libraries numbering in the aggregate 175,000 volumes, while Arkansas, admitted in 1836, can number in public libraries throughout all

the broad extent of her territory only 48,173 volumes. This is a bad showing for the reading proclivities of our people, and the matter deserves careful consideration.

To remedy the matter, where can a better beginning be made than right here at the State University, where the youth, coming up from all parts of the State, may learn, under careful and competent instructors, to value and to use a well-equipped library, and may carry home with them the desire to diffuse and strengthen in the various towns and villages the taste for more and better literature? Thus all through the State small libraries will spring up here and there, and taking root, will grow and produce for the State a hundred-fold harvest of thoughtful public spirit and intelligent patriotism.

Private philanthropy might be of much service in this matter, and probably would be so, if our needs were properly known. Any donation from private persons will be reported to the Board of Trustees and receive proper acknowledgment.

Besides the nuclei of technical libraries for the various departments, as already mentioned, we have a small but carefully selected collection of books on general literature. Additions to the library are made annually from a small fund set apart by the Board of Trustees.

Nearly all the newspapers of the State of Arkansas, and several from other States have been generously furnished to the Library, either by the publishers or other friends of the University. The best magazines of America, and some from England, France and Germany, are also purchased. All these are kept on file in the Library, and students have access to them, as well as the books, at certain hours each day. No Library fee is charged, but a deposit of $2 is required to insure proper care of the books taken from the Library.

APPARATUS.

The University is supplied with no inconsiderable amount of apparatus for illustrating the different sciences, and for the prosecution of original work. Most of the departments are well equipped for practical laboratory and field work.

MUSEUM.

The cabinet of minerals consists chiefly of a collection of State minerals, contributed by various parties of the State, and by the professors; but it has been recently enlarged by purchase, and embraces also specimens of value from other States.

There has been constructed an herbarium case large enough to hold the indigenous plants of North America and such exotics as are of economic value. It will be the work of years to complete a collection of the plants of North America, but the work is progressing. A valuable addition has been made by the purchase of Prof. Harvey's collection of the plants of Arkansas, embracing more than 2500 specimens.

There are about 500 species of animal specimens for illustrating the various parts of zoology.

Collections in all the departments are slowly accumulating.

Contributions of minerals, fossils, Indian relics and rare curiosities are solicited.

APPOINTMENT OF BENEFICIARIES.

All appointments should be completed, if possible, before the opening of the autumn term. The County Judges, who make the appointments, should prepare duplicate notifications of appointments, one of which should be forwarded to the President of the University and one to the Secretary of the Board of Trustees; and in case the appointee fails to appear at the University within twenty days after an appointment (except in case of sickness) he or she will be regarded as having declined the appointment, in which case it will be the duty of the President of the Faculty to notify the person making the appointment of such failure, and he, in turn, should make another appointment as soon thereafter as possible, such other appointee being required to appear at the University as soon as possible after appointment. The President of the Faculty should continue to notify appointing officers until their respective number of appointees make their appearance at the University.

All beneficiary students should be present at the opening of the autumn term; and unnecessary delay, either of old students returning, or new ones reporting, will lead to the forfeiture of their appointments.

QUALIFICATIONS.

The attention of County Judges is called to the fact that *no Beneficiary Students will be admitted unless they have the following qualifications:*

Students are not admitted until they have become familiar with the fundamental principles of arithmetic, viz: addition, subtraction, multiplication and division. Intending, they must be able to understand and intelligently render specimens of the grade of the Fourth Reader, must have a knowledge of primary English grammar, primary geography, the rudiments of penmanship, and the spelling of ordinary words of the grade of the Fourth Reader. These qualifications are the test of admission at the beginning of the session; those applying later will be admitted only on the grade of the class.

APPOINTMENTS.

As much trouble and annoyance is caused by students who have been appointed beneficiaries, coming without any evidence of appointment, the following are adopted as the proper forms of notice to be given by the Judge of the County Court to the President of the University and the Secretary of the Board of Trustees, upon the appointment of beneficiary students by the County Court or the Judge thereof, in accordance with the sixth section of an act, approved March 6, 1875.

[*Form 1—Appointment.*]

No..... [To be given to the Student.]

To whom it may concern:

I ..... County, State of Arkansas, as a beneficiary, to the Arkansas Industrial University.

Given under my hand this.....day of.....188..

Send a notice like the following to the President of the University, and one to the Secretary of the Board of Trustees, at Fayetteville:

[*Form 2—Notice to President of the University.*]

.....Arkansas. }
..... }

To the..... .....University:

I hereby notify you that I have this day appointed.....
.....of.....County, State of Arkansas, a beneficiary to the Arkansas Industrial University.

Given under my hand this.....day of.....188..

.....

BENEFICIARIES.

The Board of Trustees have provided that the number of beneficiaries shall be limited to one thousand, to be distributed to the counties in the State in proportion to population of 1880, and that in every case, where a county fails to supply its quota of beneficiaries, the Governor shall be authorized to appoint such beneficiaries to the full number authorized by law, provided that such appointment may be vacated on an application from a county so failing to fill its quota, but may be resupplied from some other county whose quota has not been filled. [See table.]

COUNTIES.	Beneficiaries.	COUNTIES.	Beneficiaries.
[illegible]	10	Lee	16
[illegible]	13	Lincoln	12
[illegible]	7	Little River	6
[illegible]	24	Logan	19
[illegible]	15	Lonoke	15
[illegible]	8	Madison	15
[illegible]	7	Marion	10
[illegible]	16	Miller	12
[illegible]	12	Mississippi	9
[illegible]	13	Monroe	12
[illegible]	15	Montgomery	7
[illegible]	8	Nevada	17
Cleveland	10	Newton	6
Columbia	19	Ouachita	15
[illegible]	16	[illegible]	6
Craighead	8	Phillips	28
Crawford	11	Pike	3
Crittenden	11	Poinsett	7
Cross	6	Polk	3
Dallas	9	Pope	19
Desha	11	Prairie	10
Drew	15	Pulaski	45
Faulkner	17	Randolph	12
Franklin	18	Saline	11
Fulton	8	Scott	19
Garland	11	Searcy	7
Grant	8	Sebastian	28
Greene	9	Sevier	3
Hempstead	24	Sharp	12
Hot Spring	10	Stone	8
Howard	12	St. Francis	10
Independence	21	Union	16
Izard	14	Van Buren	11
Jackson	25	Washington	27
Jefferson	29	White	21
Johnson	15	Woodruff	12
Lafayette	6	Yell	18
Lawrence	10		

There is also one "Honorary Scholarship" to each county, to be selected for superior merit and proficiency from the Public Schools of each county, according to section 2 of act July 23, 1868.

SALE OF ARDENT SPIRITS NEAR THE ARKANSAS INDUSTRIAL UNIVERSITY.

By an act of the General Assembly of the State of Arkansas, approved March 9, 1875, it is unlawful for any person to sell or give any vinous or ardent spirits within three miles of the Arkansas Industrial University, unless it be prescribed by a regular practicing physician for medical purposes.

Applications for catalogue or blanks for Beneficiary Appointments should be addressed to Col. J. L. Cravens, Secretary, Fayetteville, Ark.

COMMENCEMENT.

1888.

1. *Sunday, August 26, 11 a. m.,*
COMMENCEMENT SERMON,
By DR. J. H. GARRISON, St. Louis, Mo.

2. *Wednesday, August 29, 8:30 p. m.,*
MYTHETIAN EXERCISES.

3. *Thursday, August 30, 8:30 p. m.,*
SENIOR CLASS DAY.

4. *Thursday, August 30, 8:30 p. m.,*
PHILOMATHIAN EXERCISES.

5. *Friday, August 31, 11 a. m.,*
COMMENCEMENT ADDRESS—CONFERRING OF DEGREES BY THE GOVERNOR.

6. *Friday, August, 31, 8:30 p. m.,*
ALUMNI BANQUET.

CLASS, 1888.

Degrees Conferred.

The following students received the degrees affixed to their names:

BOWLES, PRESTON, C. E.
DANAHER, MIKE, B. A.
DICKSON, W. E., B. A.
PACE, IDA V., B. A.
POLSON, ALICE, B. S.
TREADWELL, LEE, C. E,
CROZIER, W. N., B. A.
DRAKE, N. F., C. E.
HOBBS, JOHN H., B. A.
POWELL, W. W., B. A.
SCHOFF, GEORGE C., C. E.
WARREN, G. A., B. Let.
SOUTHERLAND, J. W., L. I.

LEE TREADWELL, Valedictorian.

IDA V. PACE, Salutatorian.

CALENDAR, 1888-89.

The Fall Term begins Monday, September 3, 1888.
The Fall Term ends Friday, November 30, 1888.
Spring Term begins Monday, March 4, 1889.
Spring Term ends Monday, June 3, 1889.
Summer Term begins Monday, June 3, 1889.
Commencement, August 29 and 30, 1889.
Summer Term ends Monday, September 2, 1889.
The Fall Term begins Monday, September 2, 1889.
The Fall Term ends Thursday, December 5, 1889.

From the above it may be seen that hereafter the vacation will be in the winter. This arrangement affords students from malarial districts an excellent opportunity to spend the summer at school in the mountains, and enjoy the winter vacation at home without endangering their health.


ARKANSAS
UNIVERSITY
MEDICAL
DEPARTMENT
1879

MEDICAL DEPARTMENT.

The Trustees of the Arkansas Industrial University, in the spring of 1879, deemed it expedient to establish a *Medical Department*, to be located at Little Rock, the capital of the State. The organization was accordingly at once perfected, a full corps of professors secured, and the First Annual Announcement of a course of Medical Lectures, to commence October 7, 1879, was issued to the public.

Since this date, an annual course of medical lectures, beginning early in October, and continuing five months, has been given at the Medical College building, situated on Second, between Main and Louisiana streets, Little Rock.

The medical gentlemen comprising its faculty, are all men of acknowledged ability and standing in their profession, and have been untiring in their efforts to advance the interests of this department.

The growth of this branch has been gradual and natural, the session of 1879 and 1880 having twenty-two matriculates, and one graduate, who had previously attended a course of lectures at another institution, while the Ninth Annual Session (1887 and 1888) had sixty-seven matriculates and twenty graduates.

The College building is a very imposing three-story structure, composed of stone and brick, and very conveniently located. It contains two general lecture halls, and a very large, well-ventilated dissecting-room, well provided with all the improved conveniences for obtaining a thorough and complete practical knowledge of the anatomy of the human body.

The College is also well provided with the necessary charts, models, apparatus, etc., for illustrating each particular subject practically to the eye as well as to the ear of the student. The

supply of dissecting material is ample and at a mere nominal cost—the State having made liberal provision in this particular.

The *Clinical* instruction in this institution is very extensive, embracing almost every disease known to prevail, and every class of accident liable to occur. These are always practical, and afford superior advantages to students and practitioners to obtain an ocular demonstration of diseases, accidents and their treatment.

The Tenth Annual Session will commence on Wednesday, October 3, 1888, and continue five months.

For special catalogue or other information apply to

R. G. JENNINGS, M. D.,
Secretary of Faculty, Little Rock, Ark.

THE BRANCH NORMAL COLLEGE,

PINE BLUFF, ARK.

The Branch Normal College is a Department of the Arkansas Industrial University, established pursuant to an act of the General Assembly of the State of Arkansas, approved April 25, 1873, and has been in operation since September 27, 1875. Its primary object is the training of teachers for efficient service in the colored public schools of the State—the law referred to having been enacted with special reference to the "convenience of the poorer classes." For the purpose of carrying out the intent of the law, by enabling those who wish to avail themselves of its advantages, there is no charge for tuition for appointees; the only requirements for admission being suitable age and qualifications, an appointment from one of the County Judges, and the payment of the entrance fee.

By the laws of the State, the appointment of students to the Branch College, in numbers from each county of the State is the same as the parent university at Fayetteville. The power is vested in the County Courts; but any vacancies occuring during the vacations of the Courts shall be filled by the Judge of the County Court.

All students thus appointed are entitled to four years' free tuition, upon the payment of $5 matriculation fee *in advance at the time of entering the school.*

All beneficiaries and normal students should be present at the opening of the autumn term; and unnecessary delay, either of old students returning, or of new ones reporting, *will lead to the forfeiture of their appointments.* The strictest attention in study, and most exact punctuality in attendance on recitations and all other duties, are made the conditions of every

student's continuance at the Institution. Appointments are not transferable.

LOCATION, ETC.

The school property consists of a beautiful tract of twenty acres of ground, immediately west of the corporation line of the city of Pine Bluff, Jefferson county, Ark., and a few rods from the junction of the Little Rock, Mississippi River & Texas, and St. Louis, Arkansas & Texas Railroads.

The school building, completed in 1881, and occupied January 30, 1882, is one of the handsomest educational edifices in the State, as well as one of the best, being warm and comfortable, well lighted and ventilated. It contains one large assembly room, four recitation rooms, and cloak rooms for males and females. The building is of brick, with slate roof and trimmings of Alabama granite, and cost, with improvements and furniture, about $12,000. The furniture and other equipments are of the best modern style. The course of study will be seen by reference to the catalogue, is somewhat more extensive than is usual in normal institutions, an differs from the usual college curriculum merely in the omission of one or two branches of higher mathematics, and in embracing somewhat less of languages. The full collegiate course, as laid down in the catalogue of the Arkansas Industrial University, can also be pursued by such students as desire to study the higher branches, and the usual degrees are conferred upon the completion of such course. Six classes have graduated. As aids in their studies, students have access to the library and cabinet of minerals of the principal, both of which were selected with special reference to the requirements of normal educational work.

THE LIBRARY.

During the past year the reading-room has been neatly fitted up and furnished, and a number of valuable reference books, including a full set of Appleton's Cyclopedia, have been added to the library. Some important additions have also been made to the apparatus. In the reading-room will be

found files of newspapers and other periodicals from all portions of the country.

DORMITORY.

A contract for a new dormitory, which is to be completed by the beginning of the next session, has been entered into, and arrangements for its erection are in progress. A number of students can thereby be accommodated with board and lodging upon the College grounds.

EXPENSES.

The expenses of a student at the Branch Normal College need not exceed the amount herein stated.

Board in private families, including fuel, light and washing, can be had from eight to ten dollars per month. A Normal student pays five dollars entrance fee, which entitles him to free tuition for four years.

Books may be purchased at Pine Bluff at the publisher's usual retail price. Quite a number of students have paid a part of their board by labor in private families.

Non-beneficiary students will be charged the sum of one dollar per month for tuition, payable in advance.

It will be a great advantage to the institution if the various County Judges will take a special interest in seeing that their counties are represented. The proper blanks for making appointments will be furnished, together with all necessary information, on application to the principal.

J. C. CORBIN, A. M.,
Pine Bluff, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.

CLASS OF 1875.

Name.	*Residence When a Student.*	*Present Residence and Remarks.*
Botefuhr, Laura D	Fayetteville, Ark	Mrs. Shulte, Fort Smith, Ark.
Carson, Ann L	Jonesboro, Ark	Mrs. John Knight, Jonesboro, Ark
Carson, Augusta O	Jonesboro, Ark	Mrs. T. W. Cline, Downey, Cal.
Davis, Lizzie P	Bentonville, Ark	
McCart, Eva	Fayetteville, Ark	Mrs. D. M. Main, Cheney, Kansas.
McKinney, Chas. F	Ozark, Ark	Commercial Traveler, Ozark, Ark.
Moore, Lucy J	Fayetteville, Ark	Mrs. Ross, Cincinnati, Ark.
Putnam, Anna	Fayetteville, Ark	Teacher in Public School, Fayetteville, Ark

1876.

Barnett, Nettie	Fayetteville, Ark	Mrs. C. Boles, Fayetteville, Ark.
Gorton, Bell L	Aurora, Ill	
Gregg, Alfred W	Fayetteville, Ark	Deceased.
Harris, Agnes	Fayetteville, Ark	Mrs. Johnson, Kansas City, Mo
Harris, Sallie F	Fayetteville, Ark	Mrs. C. P. Conrad, for several years Professor in A. I. U., Kansas City, Mo
Johnson, Albert P	Wesley, Ark.	Lawyer, Winfield, Kansas
Neal, W. H	Van Buren, Ark	Lawyer, Van Buren, Ark.
Taylor, E. L	Van Buren, Ark	Teacher, Benton county, Ark.
Waggener, W. J	Farmington, Ark	Professor Philosophy in University of Colorado, Boulder, Col.

1877.

Borden, Alice	Fayetteville, Ark	
Carden, E. B	Bloomer, Ark	
Hawkins, J. T	Mt. Holly, Ark	Physician, Mt. Holly, Ark.
Jennings, Edgar P	Fayetteville, Ark	Fayetteville, Ark.
Massie, Collin	Fayetteville, Ark	Teacher in A. I. U., Fayetteville, Ark.
Mellette, W. M	Fort Smith, Ark	Lawyer, Fort Smith, Ark.

1877.

Name.	*Residence When a Student.*	*Present Residence and Remarks.*
Simms, W. D	Bentonville, Ark	
Walker, J. V	Fayetteville, Ark	Prosecuting Attorney, Fayetteville, Ark.
Watson, Chas. A	Washington county, Ark.	Teacher High School, Harrison, Ark.

1878.

Blakely, Nora	Fayetteville, Ark	Mrs. H. M. Hudgins, Hot Springs, Ark.
Gregg, Andrew S	Fayetteville, Ark	Physician, Fayetteville, Ark
Pettigrew, Thomas A	Charleston, Ark	Lawyer, P. O. Inspector, Charleston, Ark.
Reed, Maggie	Fayetteville, Ark.	Mrs. P. A. Crawford, Fayetteville, Ark.
Sutton, Wm. S	Fayetteville, Ark	Superintendent Public Schools, Houston, Texas.

1879.

Butler, H. M	Varner Station, Ark	Teacher, Waco, Texas.
Floyd, J. C	Bentonville, Ark	Lawyer, Yellville, Ark.
Harrod, J. H	Lonoke, Ark	Lawyer, Conway, Ark.
Marrs, S. E	Viney Grove, Ark	Editor Democrat, Fayetteville, Ark.
Marshall, J. C	Avoca, Ark	Lawyer, Little Rock, Ark.
Patton, Alice	Viney Grove, Ark	Teacher, Viney Grove, Ark.
Teague, C. V	Toledo, Ark	Lawyer, County Judge, Hot Springs, Ark.
Wood, C. D	Hamburg, Ark	Judge Circuit Court, Monticello, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

1880.

Name.	*Residence When a Student.*	*Present Residence and Remarks.*
Kitchens, T. B	Jonesboro, Ark	
Langford, W. H	El Dorado, Ark	Merchant, Pine Bluff, Ark.
Russell, Lawrence	Russellville, Ark	Lawyer, Russellville, Ark.
Droke, G. W	Bentonville, Ark	Teacher, A. I. U., Fayetteville, Ark.
Ross, T. C.	Fort Smith, Ark	Lawyer and Real Estate Agent, Fort Worth, Texas.
Johnson, T. M	Wesley, Ark	
Tillman, J. N	Fayetteville, Ark	Circuit Clerk, Fayetteville. Ark.
Williams, Naomi J	Fayetteville, Ark	Teacher, A. I. U., Fayetteville, Ark.
King, Artelle Alice	Fort Smith, Ark	Mrs. J. C. Belt, Brooken, I. T.
Patton, Mattie J	Viney Grove, Ark	Teacher, Viney Grove, Ark.

1881.

Carnall, Ella	Fort Smith, Ark	For several years teacher in the A. I. U., Fort Smith, Ark.
Ellis, F. W	Fayetteville, Ark	United States Signal Service, Washington, D. C.
Moore, J. I	Vineyard, Ark	Lawyer, Helena, Ark.
Reed, Lina	Fayetteville, Ark	Book-keeper, Fayetteville, Ark.
Reiff, O. S	Magazine, Ark	Auditor's office, Little Rock.
Watson, J. J	Fayetteville, Ark.	Teacher in Australia.

1882.

Brown, W. D	Newtonia, Mo	Physician, ————.
Booth, W. P	Batesville, Ark	
Carrigan, A. H	Washington, Ark	Lawyer, Throckmorton, Texas.
Chansler, C. K	Washburne, Mo	County Clerk, Grant's Pass, Oregon.
Cherry, W. R	Patterson's Bluff, Ark	Lawyer, ————.
Gregg, L. W	Fayetteville, Ark	Lawyer, Fayetteville, Ark.
Hon, Daniel	Waldron, Ark	County Judge, Waldron, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

1882.

Name.	*Residence When a Student.*	*Present Residence and Remarks.*
Jones, Gustave	Jacksonport, Ark	Teacher, Marysville, Mo.
Lanier, J. A. M	Mountain Home, Ark	Teacher, Mountain Home, Ark.
McDonough, J. B	Bloomer, Ark	Lawyer, Fort Smith, Ark.
McFarlane, W. R	Enterprise, Ark	Lawyer, Greenwood, Ark.
Oats, T. F	Russellville, Ark	Physician, Mexia, Texas.
Pickel, J. W	Mulberry, Ark	Lawyer —— —— ——
Rogers, P. A	Spavanaw, Ark	Farmer, Spavanaw, Ark.
Shell, G. C.	Augusta, Ark	Lawyer, Lake Village, Ark.

1883.

Bates, C. O	Cincinnati, Ark	Principal High School, Owosso, Mich.
Cravens, Jessie	Fayetteville, Ark	Teacher in Public School, Fayetteville, Ark.
England, W. W.	Evansville, Ark	Teacher, —— —— ——
Greaves, C. D.	Hot Springs, Ark	Lawyer, Hot Springs, Ark.
Mayes, J. F.	Fayetteville, Ark	Book keeper, Fayetteville, Ark.
Stroup, Henry	Webb City, Ark	Editor, —— —— ——
Taliaferro, Lou	Bentonville, Ark	Teacher in Public School, Bentonville, Ark.

1884.

Anderson, L. S	Herndon, Ark	Civil Service Bureau, Washington, D. C.
Duncan, W. H	Conway, Ark	Lawyer, Conway, Ark
Edmiston, W. L	Springfield, Mo	Teacher, —— ——
Gates, D. A	Tillar Station, Ark	Lawyer and Editor.
Goodwin, W. P	El Dorado, Ark	
Hilis, E. W	Jonesboro, Ark	
Hudson, J. H	Dardanelle, Ark	
Lake, Ella	Viney Grove, Ark	Teacher of Music, Cane Hill College, Boonsborough, Ark.
Reed, G. W. M., Jr	Fayetteville, Ark	Lawyer and Real Estate Agent, Fayetteville, Ark.
Taff, J. L.	Walduron, Ark	Teacher, Austin, Texas.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

1885.

Name.	*Residence When a Student.*	*Present Residence and Remarks.*
Hart, J. C	Dardanelle, Ark	Lawyer, Dardanelle, Ark.
Howell, J. W	Clarksville, Ark	Secretary to Governor Hughes, Little Rock, Ark.
Kinsworthy, E. B	Black Colony, Ark	
Notrebe E. P	Sarassa, Ark	Physician, Mississippi.
Woodall, W H	El Paso, Ark	Teacher, Lonoke.
Woolverton, C. D	Center Ridge, Ark	Teacher, ——— ——

1886.

Bates, J. H	Cincinnati, Ark	Principal Public Schools, Corsicana, Texas.
Leverett, Mary	Fayetteville, Ark	Teacher Public Schools, Fayetteville, Ark.
Middleton, Mai	Fayetteville, Ark	Mrs. Robert Chasteen, ——— ——
Mulholland, Sarah	Fayetteville, Ark	Mrs. J. F. Mayes, Fayetteville, Ark.
Tillar, B. J	Tillar Station, Ark	Lawyer, Washington, D. C.